CONTINGENCY AND EMERGENCY RESPONSE PLAN

Aquifer Protection Permit No. P-101704

February 25, 2022

Controlled Copies

No. 1 of 6	General Manager
No. 2 of 6	Production Test Facility Control Room
No. 3 of 6	Environmental Department
No. 4 of 6	Taseko Corporate Office
No. 5 of 6	ADEQ Groundwater Protection
No. 6 of 6	EPA District 9

Authorizing Signature

Brent Berg, General Manager
Florence Copper, Inc.

Signed this 25 day of February, 2022

Contents

APPENDICES

Table of Figures

Emergency Response Information

Name of Facility	Florence Copper Inc.
Location of Facility	1575 W Hunt Hwy Florence, Arizona 85132
Latitude/Longitude	33° 03’ 00” N / 111° 25’ 00” W
Legal Description	Township 4S, Range 9E, Sections 26, 27, 28, 33, 34, and 35, NE¼, NE¼, SE ¼ of the Gila and Salt River Base Line and Meridian
Telephone Number, Main Office	(520) 374-3984
Telephone Number, Process Control Room	(520) 316-3715
Fax Number	(520) 374-3999
Type of Facility	In-situ Copper Recovery (ISCR)

Florence Copper, Inc. Emergency Response Team

Designated Emergency Response Coordinator	Operations Manager
Alternate Emergency Response Coordinator	Technical Manager
Response Team Member	Process Superintendent
Response Team Member	Environmental Manager
Response Team Member	Sr. Hydrogeologist
Response Team Member	Environmental Engineer
Response Team Member	Safety Coordinator
Response Team Member	Senior Supervisor

Florence Copper, Inc. Crisis Communications Team

Crisis Chairperson	General Manager
Crisis Coordinator	Technical Manager
Media Relations and Communications Coord.	Florence Communications Coordinator
Media Relations and Communications Coord. Alternate	Taseko Communications Coordinator

Emergency Evacuation Meeting Locations:

Admin/Warehousing: W side of Administrative parking lot

Operations: SE Corner of Process Test Facility parking lot

POST IN CONTROL ROOM

Emergency Response Contacts:

RESPONSE TEAM

Designated Emergency Response Coordinator	Dan Valenzuela Operations Manager	Office: 520-316-3703 Cell: 520-840-0520
Alternate Emergency Response Coordinator	Glenn Hoffmeyer Technical Manager	Office: 520-316-3700 Cell: 520-431-7321
Response Team Member	Jennifer Saran Environmental Manager	Office: 520-316-3707 Cell: 480-532-0108
Response Team Member	Ian Ream Sr. Hydrogeologist	Office: 520-316-3701 Cell: 520-840-9604
Response Team Member	Jane Fillmore Environmental Engineer	Office: 520-316-3706 Cell: 520-840-0118
Response Team Member	Isaac Carrasco Safety Coordinator	Office: 520-316-3718 Cell: (520) 840-9086
Response Team Member	Bryan Dominguez Senior Supervisor	Office: 520-316-3712 Cell: 520-483-0573

CRISIS COMMUNICATION TEAM

Crisis Chairperson	Brent Berg General Manager	Office: 520-316-3710 Cell: 480-487-2001
Crisis Coordinator	Glenn Hoffmeyer Technical Manager	Office: 520-316-3700 Cell: 520-431-7321
Media Relations and Communications Coord.	Stacy Gramazio Florence Communications Coordinator	Office: 520-316-3713 Cell: 520-840-3106
Media Relations and Communications Coord. Alternate	Sean Magee, VP Corporate Affairs Taseko Communications Coordinator	Office: 778-373-4543 Cell: 604-351-2550

Emergency Evacuation Meeting Locations:

Admin/Warehousing: W side of Administrative parking lot

Operations: SE Corner of Process Test Facility parking lot

Updated February 25, 2022

Facility Emergency Support Contact Information

LIFE THREATENING MEDICAL EMERGENCY

Including, but not limited to: Chest pain, difficulty breathing, fainting/loss of consciousness, unchecked bleeding; severe pain, injury to head or spine, heat stroke.

Call 911. Give description of patient's location. If safe to do so, deliver immediate first aid as needed while waiting for ambulance. Let Security know where to send responders.

FIRE/POLICE

Agency	Telephone #
Town of Florence Fire Department (State land - PTF)	**520-868-7609 or 911**
Pinal County Sheriff's Office (State land - PTF)	**520-866-5111 or 911**
Florence Police Department	**520-868-7681 or 911**
Security at Florence Copper	**520-252-1616**

Non-Life-Threatening Medical Treatment

Serious injury: Fractures, large cuts, burns, etc. – **Call 911.** Deliver immediate first aid if safe to do so. Let Security know where to send responders.

Strains, Sprains, Cuts and Abrasions: Deliver immediate first aid. Transport employee to emergency clinic (see below) for evaluation and treatment if needed.

Local Urgent Care Clinics and Hospitals

Florence Hospital at Anthem, LLC (Figure 1) **Hours: 24/day**
4545 N Hunt Hwy
Florence, AZ 85132
Phone: **520-868-3333**
https://www.mvmedicalcenter.org/florence-hospital-campus-mountain-vista-medical-center

Fast-Med Urgent Care (Figure 3) **Hours: 8:00 A.M. to 6:00 P.M. M-F (will reopen April 2022)**
495 N Pinal Pkwy, Suite 106
Florence, AZ 85132
Phone: **520-868-0573**
https://www.fastmed.com/urgent-care-centers/florence-az-walk-in-clinic-north-pinal-parkway/

Banner Urgent Care (Figure 4) **Hours: 8:00 A.M. to 9:00 P.M. 7 days/week**
35945 N Gary Rd
San Tan Valley, AZ 85143
Phone: **520-827-5750**
https://www.bannerhealth.com/locations/san-tan-valley/banner-urgent-care-gary-empire

Banner Ironwood Medical Center (Figure 2) **Hours: 24/7**

37000 N. Gantzel Rd
Queen Creek, AZ 85140
Phone: **480-394-4000**
https://www.bannerhealth.com/locations/queen-creek/banner-ironwood-medical-center

Maps and Directions to Emergency Medical Facilities

Emergency Facilities near Florence Copper

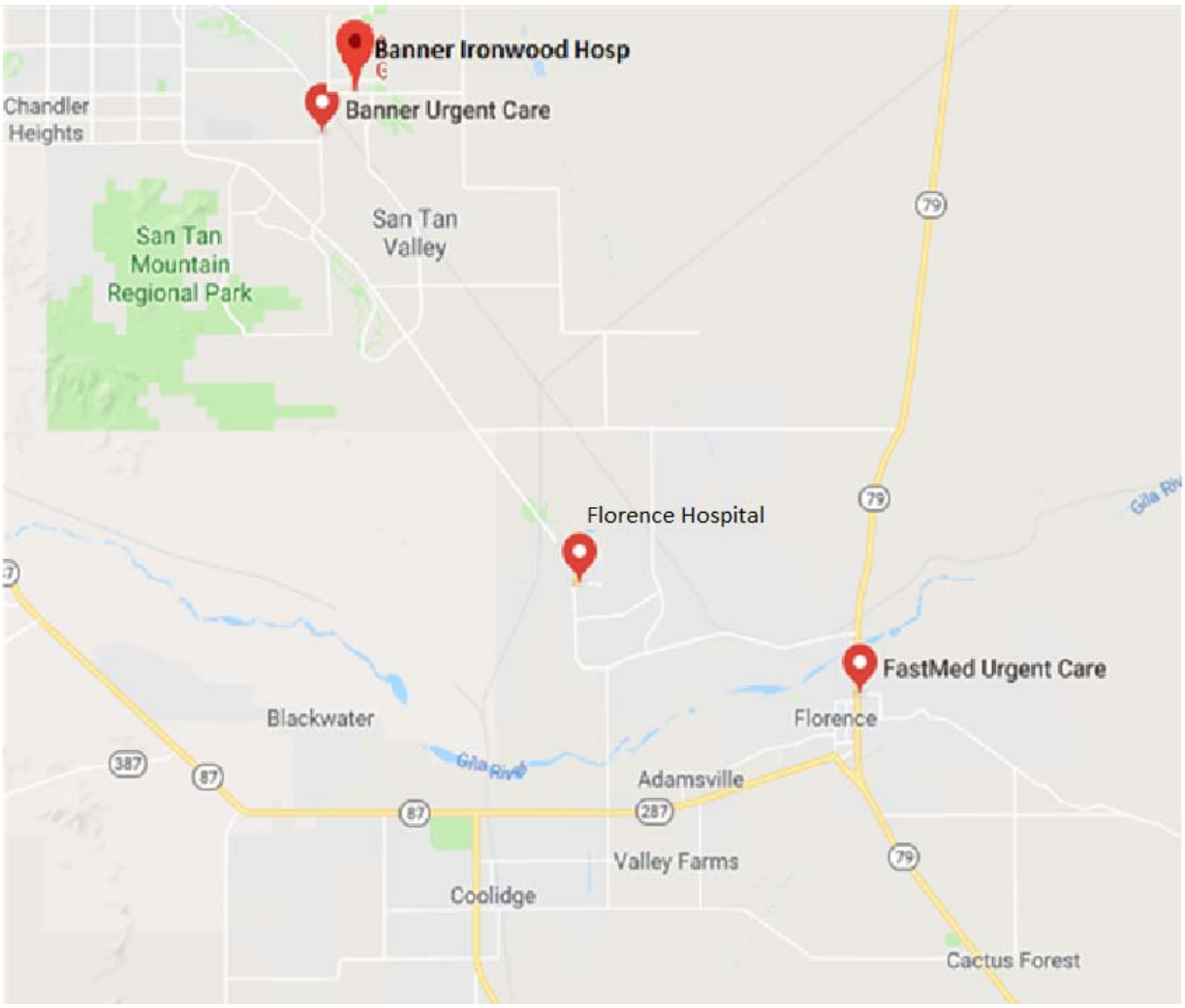

Figure 1. Emergency Care Facilities near Florence Copper

Florence Hospital at Anthem

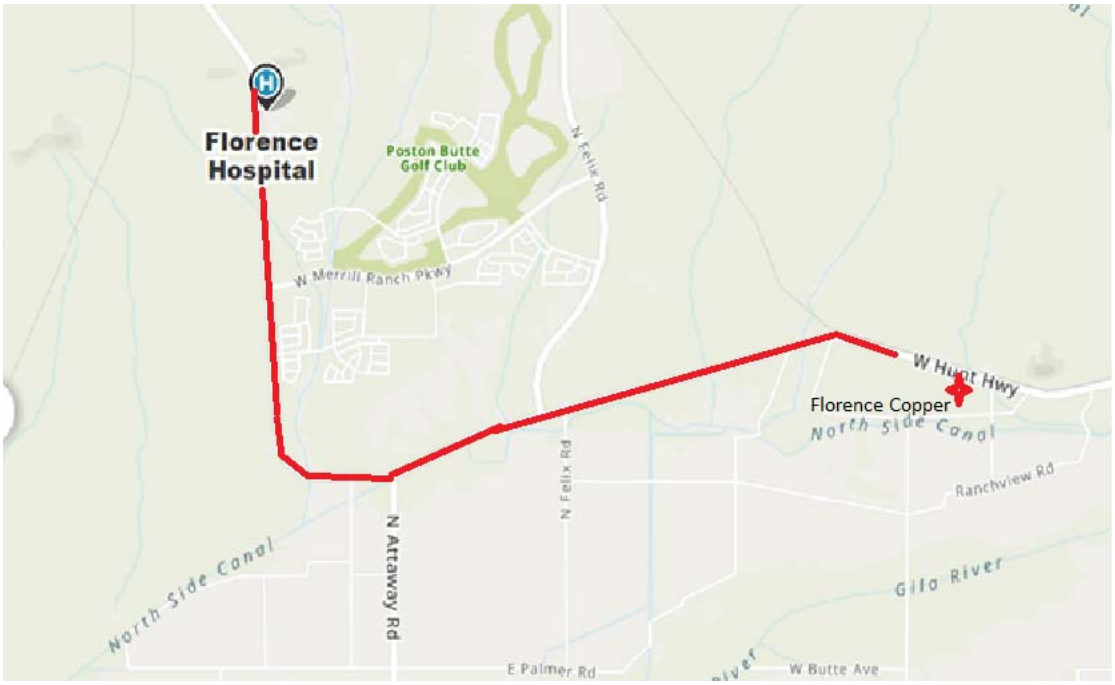

Figure 2. Florence Hospital

Directions:

Turn left onto Hunt Hwy for 6.2 miles

The hospital is on the right.

Banner Ironwood Medical Center

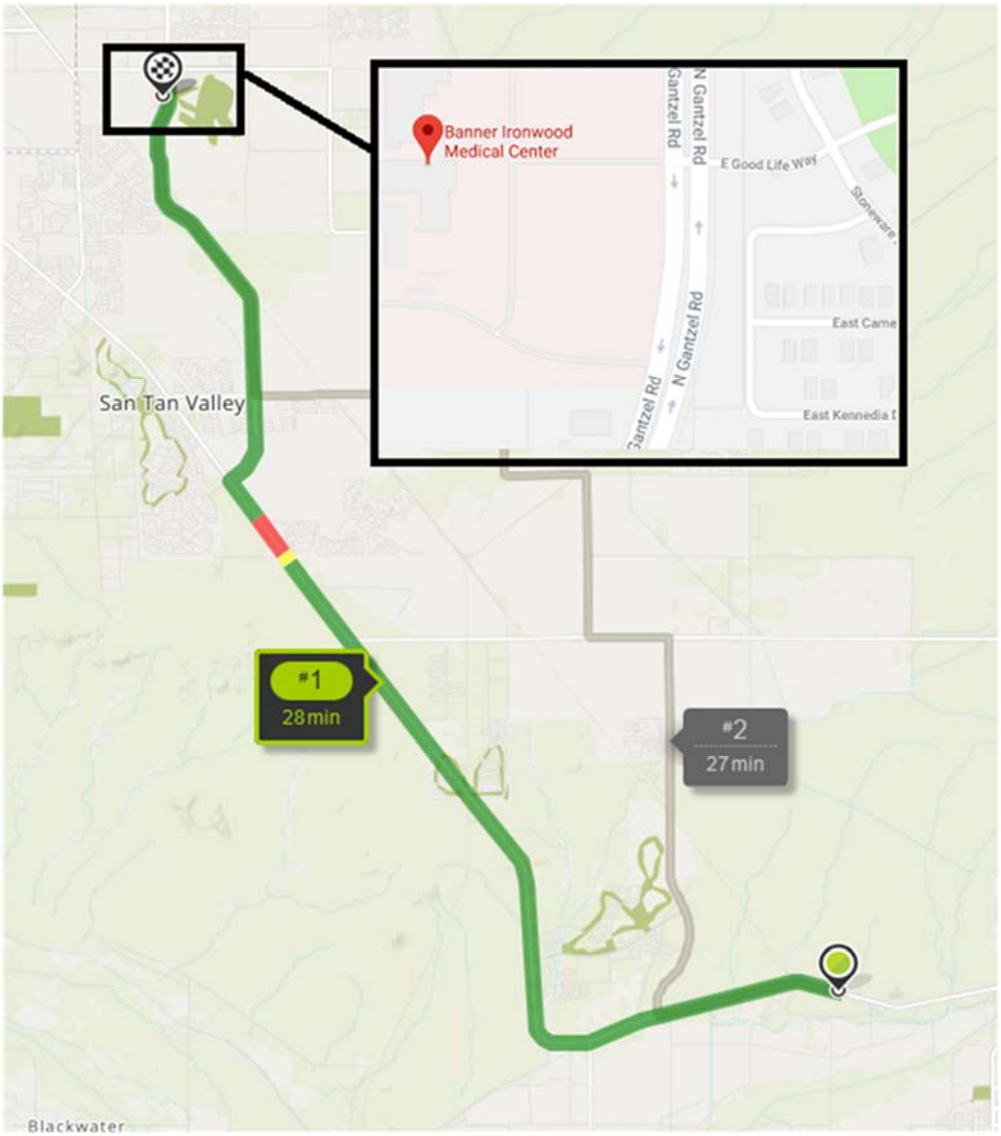

Figure 3. Banner Ironwood Medical Center

Directions:

Turn left onto Hunt Hwy for 12.6 miles

Turn right onto N Gantzel Rd for 5.3 miles

Turn left onto E Good Life Way for 0.1 miles

Turn left. The Hospital is on the right.

Fastmed

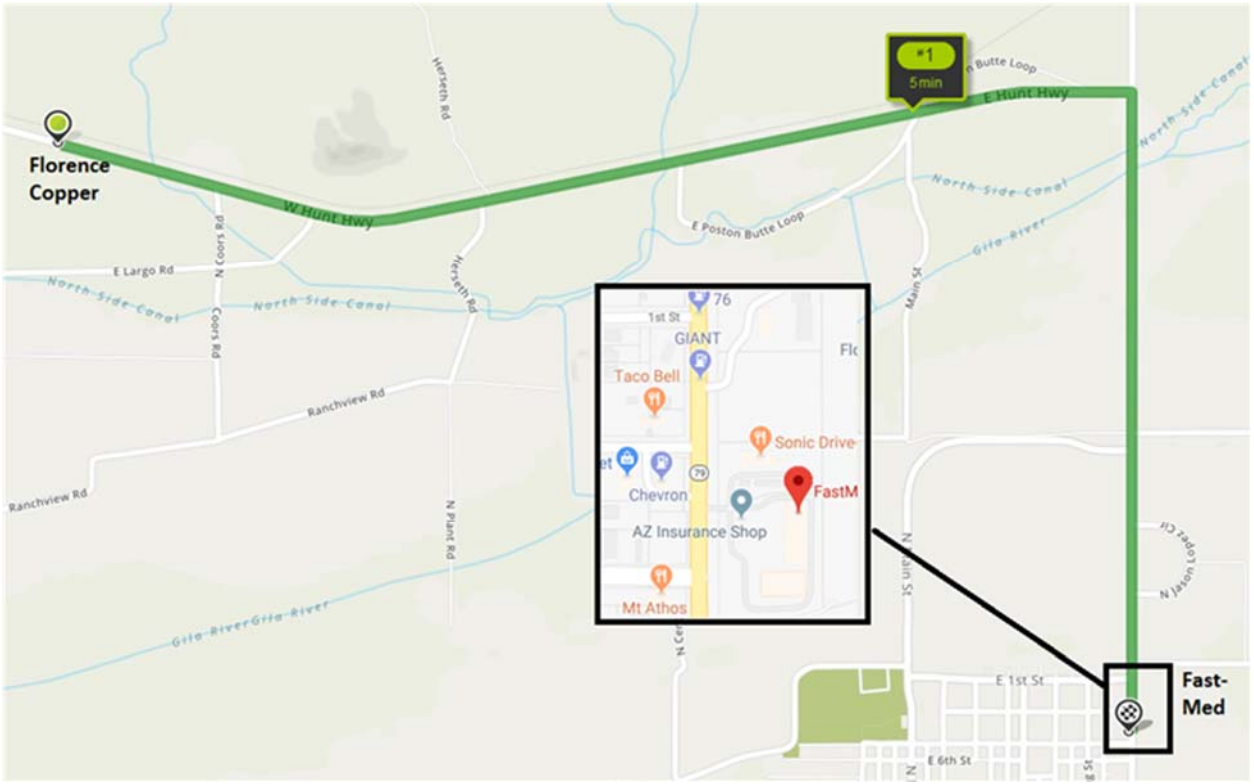

Figure 4. Fastmed

Directions:

Turn right onto Hunt Hwy for 1.8 miles (Road ends at a 'T')

Turn right onto N Pinal Pkwy for 1.4 miles (pass by McDonald's at 1.2 miles)

Turn left, then turn right. Destination is on the right.

Banner Urgent Care

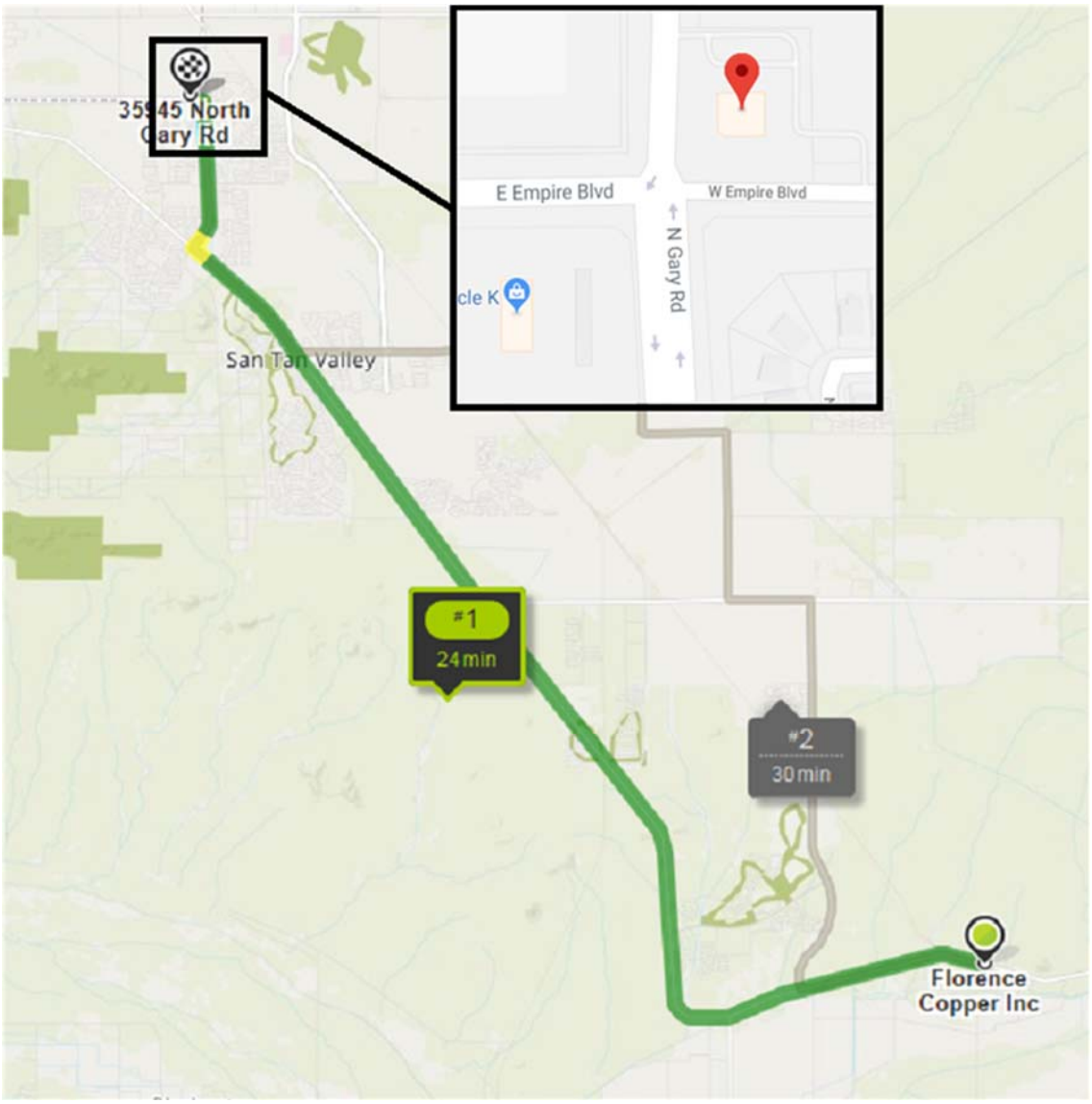

Figure 5. Banner Urgent Care

Directions:

Turn left onto Hunt Hwy for 15.6 miles (past Dunkin Donuts on Rt. at 15.4 miles)

Turn right onto Gary Rd for 1.9 miles

Turn right for 66 feet

Turn right. Your destination is on the right.

1. Introduction

1.1 Purpose and Scope

Florence Copper, Inc. (Florence Copper) has prepared this Contingency Plan in compliance with requirements of Arizona Administrative Code (A.A.C.) R18-9-A204 and Section 2.6.1 of Aquifer Protection Permit No. 101704. This Contingency Plan defines the actions to be taken if a discharge results in any of the following:

- An imminent and substantial endangerment to the public health or the environment,
- A violation of an Aquifer Water Quality Standard (AWQS) or an Aquifer Quality Limit (AQL),
- A violation of a discharge limitation, or
- A violation of any other permit condition.

This Contingency Plan also outlines the policies and procedures for responding to emergencies.

1.2 Facility/Site Information

Florence Copper is operating an in-situ copper recovery (ISCR) and electrowinning facility located in Florence, Arizona. The Florence Copper Facility consists of approximately 1,341 acres of land located between Hunt Highway and the Gila River northwest of Florence. Activity is currently being conducted in three main areas: The Administration Area, the Production Test Facility (PTF), and the PTF wellfield. The Administration Area is located on the northeast portion of the site and consists of administrative facilities and some material storage. The PTF and wellfield are located west of the Administrative Area in state-lease land in Township 4S, Range 9E, Section 28, NE¼, NE¼, SE¼ of the Gila and Salt River Base Line and Meridian (south of the Hunt Highway). The site is accessed via the main gate located on Hunt Highway. Maps of the property and facilities may be found in Appendix A.

Residential areas closest to the Florence Copper facilities are the Town of Florence (Southeast approximately 1.7 miles from the site to town center), and the Anthem at Merrill Ranch development (approximately 3.3 miles to the west). The population in Florence in 2020 totaled 28,474.

1.3 Commitment to Partnership

Florence Copper recognizes that its facilities carry certain risks. In addition, certain raw materials used in the in-situ recovery and processing of copper may be reactive - and therefore hazardous - if containment is compromised. As a result, Florence Copper is committed to working with other entities in Pinal County to provide the levels of emergency response necessary to protect our employees, our neighbors, and the general public. Florence Copper reports annually, as required, to Arizona State Emergency Response Commission (AZSERC). AZSERC receives and coordinates emergency notifications of chemical releases, collects chemical inventory information and provides the information to interested parties.

1.4 Contingency Plan Elements

The Contingency Plan includes the following elements:

- Document control;
- An emergency response procedure in the event of an imminent and substantial endangerment to the public health or the environment;
- A description of the general procedures to ensure unauthorized discharges are promptly addressed, mitigated, and communicated;
- Descriptions of Best Available Demonstrated Control Technology (BADCT) implemented in the design and operation of the in-situ copper recovery and solution extraction/electrowinning (SX/EW) process;
- Descriptions of contingency planning to address specific events;
- Hazardous chemical release response; and
- Reporting and recordkeeping requirements.

These elements are described in detail in the following sections.

2.0 Document Control

This Contingency and Emergency Response Plan will be maintained in the locations where day-to-day decisions for operating the Florence Copper Production Test Facility (PTF) are made. Additional copies of the document may be maintained at other locations at the Facility, as appropriate. All employees responsible for the operation of the PTF will be advised of the location of the Contingency and Emergency Response Plan.

The Contingency and Emergency Response Plan will be formally reviewed at a minimum on an annual basis, or in the event of a condition resulting in any of the conditions identified in Section 1.1. ADEQ will be notified of any revisions to the Contingency and Emergency Response Plan. Revisions or additions to corrective actions other than those currently identified in this plan will be submitted for ADEQ review and approval, before implementation.

Document control will be maintained through a “number-copy” system to ensure that all controlled copies are numbered, and revisions are promptly made and correctly replaced in the hard copies of the document. The Contingency and Emergency Response Plan, and revisions, will be signed and approved by the General Manager.

3.0 Emergency Response

Emergency response procedures will be immediately initiated in the event of imminent and substantial endangerment to the public health or environment, such as the following:

- A release outside of containment that exceeds a reportable quantity limit as per reporting requirements in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or the Superfund Amendments and Reauthorization Act (SARA);
- A breach of a containment pond or catastrophic failure of large tanks; or
- A catastrophic event that causes a release to the environment such as a flood that exceeds the 100-year storm event, an earthquake or fire, civil unrest, or vandalism.

The contingency plan for emergency response includes several steps including designating an emergency response coordinator, notification in the event of an emergency, temporary shutdown if warranted, documentation, and follow-up.

3.1 Designation of an Emergency Response Coordinator

The Emergency Response Coordinator is Florence Copper's Operations Manager, who has been designated to be responsible for the activation of this Contingency Plan and Emergency Response Plan. If the Emergency Response Coordinator cannot be reached the alternate Emergency Response Coordinators should be called in the order listed on the contact list.

Contact information for the Emergency Response Team may be found at the beginning of this document. Other qualified employees may be delegated with the authority to act as Emergency Response Coordinator by the Operations Manager in the event a team member is not available. The Emergency Response Coordinator and designated alternates will be appropriately trained and will have a level of experience and supervising authority to commit resources to respond to any event.

3.2 Emergency Response Call-out Procedure

The Emergency Response Coordinator's name and telephone numbers will always be posted in the PTF control room. The primary Emergency Response Coordinator should be contacted immediately in the event of a life-threatening incident (after calling 911), a catastrophic event, or a serious chemical release. He/she will be responsible for contacting response personnel, Communication Coordinators, and the Environmental Department. The Environmental Department will contact the Regulatory Agencies, when necessary.

4.0 General Procedures for Responding to Unauthorized Discharges

Florence Copper's Environmental Department will report any release or other unauthorized discharge to the environment, as required under state or federal laws. Appendix C contains notification procedures and notification contact lists for the Environmental Manager or their designee.

4.1 First Responder Actions

Personnel will be trained in general first aid, automated external defibrillator use, chemical safety, and instruction in the use of Safety Data Sheets (SDS), in accordance with applicable federal, state, and local health, safety, and environmental regulations. In addition, personnel will receive emergency-response training to identify, clean-up, report, and otherwise manage unauthorized discharges relative to the Contingency Plan and related features of the Storm Water Pollution Prevention Plan (SWPPP). Training and response procedures will be reviewed annually and updated, as required.

The first person to act in the event of an emergency is known as a First Responder. In the event of a release of petroleum product, hazardous material or liquid waste outside of containment, the First Responder on the scene will:

- Consider his/her own safety first;
- Ensure that other employees in the area are aware that an emergency condition exits and that an alarm is activated;
- Make a preliminary assessment of the situation in order to:

- Inform the Senior Supervisor and Emergency Coordinator of the nature of the emergency, and the quantity and material involved if there was an accidental release;
- Take immediate action, if there is no personal risk, to eliminate the release and/or provide temporary containment; and
- Secure the area, if required.

The Supervisor will:

- Instruct the First Responder on the scene whether to begin mitigation steps as communicated by the Emergency Coordinator and immediately proceed to the scene;
- Inform the Emergency Coordinator of all vital information to facilitate early response; and
- Take responsibility for security and mitigation efforts until the Emergency Coordinator arrives at the scene.

The Emergency Coordinator will evaluate the situation and address any immediate health or safety hazards which may include toxic vapors or fumes, contamination of individuals in the release area, and fire or explosion hazards. Once these immediate concerns have been addressed, steps will be taken to contain the release.

A Spill Prevention, Control, and Counter-Measure (SPCC) Plan will be posted in the Facility control room and reviewed annually.

Facility operations may be temporarily interrupted in the event of an emergency, and as described elsewhere in this document. Interruption procedures will be posted in the Facility control room and elsewhere in the Facility, as warranted.

4.2 Equipment and Supplies

In the event of an unexpected discharge, the Emergency Coordinator will have full authority and access to the equipment, manpower, and supplies required to contain the release and complete related clean-up activities in the most efficient and expeditious manner possible. The following equipment is available on site and is available as needed for an unexpected discharge response:

- Backhoe;
- Water truck;
- Generator;
- Pumps;
- Fork lift; and
- Other supplies such as PPE, sorbent materials, spill kits, and lime.

4.3 Fire Protection

Fire extinguishers are located throughout the site. The SX/EW building is equipped with a sprinkler system and a foam fire suppression system with an independent diesel-operated pump in the event of a power outage.

5.0 Best Available Demonstrated Control Technology Protective Measures for Potential Discharge or Release Sources

The PTF and wellfield were designed using the best available demonstrated control technology (BADCT) to address potential sources of an unplanned discharge or release. A description of these controls is contained in the following sections.

5.1 Production Test Facility and Tank Farm

The Production Test Facility and tank farm are designed to capture and contain releases in a sump, which can be pumped into a characterization tank for re-use in the process or to the neutralization tank for transfer to the impoundment. Containment is designed to hold a volume equal to 110 percent of the volume of the largest tank. In the unlikely event of the containment overfilling, overflow will be diverted into the run-off pond adjacent to the PTF building.

5.2 Acid Unloading Area

The sulfuric acid unloading area and holding tank are designed with a slope pad and sump to contain any releases or leakage from the offloading or storage of acid used in the ISCR operation. Acid unloading personnel will be trained in the safe handling of the material, and an acid spill kit will be maintained in the area.

5.3 Ponds

All lined ponds will be operated with a minimum of 2 feet of freeboard above design capacity (including sediments, solutions, and storm water/direct precipitation from the 100-year, 24-hour storm event). Pond levels will be inspected daily as part of the operators' routine inspections and input flow rates will be manually adjusted or diverted if pond levels are approaching the minimum freeboard level.

Liners in the ponds and the surface delivery system will be inspected daily as part of the operators' routine inspections. Any visual damage to the liner will be marked and reported to the Senior Supervisor and repaired within 72 hours.

Visual inspections will include examining berms for evidence of slope erosion, instability, or possible failure. If an inspection determines a hazard or other condition that may potentially affect safe operation of a pond, the active area will be closed and immediately investigated. The investigation will determine the level of risk associated with the hazard and recommend corresponding responses (e.g., lowering the liquid level, draining the pond, repairs, or operational changes to prevent future hazards). The recommended responses will be implemented before the pond is returned to full operational capacity.

5.3.1 Process Water Impoundment (PWI)

The Process Water Impoundment shall be used to store neutralized solution and resulting sediments, and direct precipitation. The PWI is designed with a double liner and equipped and a leak collection and removal system. A sump with an alarm system and sump pump to remove accumulated fluids is located at the lowest elevation of the pond.

5.3.2 Run-off Pond

The Run-off Pond is designed to capture precipitation, stormwater run-off from PTF roofs, slabs, and concrete apron, fire sprinkler water or process solutions that may flow into the SX/EW building sump, releases or wash-down from the PTF, and process upset events. The pond is lined with a 60-mil HDPE textured liner. If fluid reaches a pre-determined set point in the run-off pond, a sump pump will be used to transfer fluid to the Process Water Impoundment.

5.3.3 BHP Pond

The BHP Pond shall be used to store neutralized solution and resulting sediments, and direct precipitation. The BHP Pond is designed with a double liner and equipped and a leak collection and removal system. A sump and sump pump to remove accumulated fluids is located at the lowest elevation of the pond.

5.4 Wellfield

All injection and extraction wells and pipelines are installed inside secondary containment consisting of trenches and well pads lined with a 60-mil HDPE liner. These lined trenches extend from the wellfield to the PTF, with sumps at designated intervals containing fluid detection sensors which will alert plant personnel in the event of leakage. Automatic controls and alarms are used in the wellfield to maintain hydraulic control; rates of injection and recovery are also monitored by PTF operators.

6.0 General Contingency Plan for Managing Specific Events

Florence Copper has implemented Best Available Demonstrated Control Technology (BADCT) to protect surface water and groundwater at the Florence Copper in-situ copper recovery facility. Specific areas that could possibly be a source of an unauthorized discharge have been identified and general procedures for ensuring that any unauthorized discharges are promptly addressed and mitigated have been developed. These procedures are outlined in the following sections.

6.1 Unplanned Discharge or Release Protection Measures

Florence Copper shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S.§49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment as outlined in Sections 3 and 4.

6.1.1 Discharge of Hazardous Substances or Toxic Pollutants Inside Containment

The Production Test Facility (PTF) is designed to contain process chemical releases. Its addition, the area will be equipped with release-response clean-up materials and equipment adequate for small discharges; larger discharges will be contained in the PTF sumps and run-off pond.

6.1.2 Discharge of Hazardous Substances or Toxic Pollutants Outside of Containment

As described in Section 4.1, in the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S §49-201(19)) or toxic pollutants (A.R.S.§49-243(I)) on the facility site, Florence Copper shall promptly isolate the area and attempt to contain the discharge and identify the discharged material. The name, nature of exposure, and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident shall be recorded. ADEQ Water Quality Compliance Section shall be notified within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment. A list of hazardous chemicals used on site, including their reporting quantities and storage locations, is located in Appendix B.

6.1.2.1 Containment Procedures

The primary emergency response objectives are to minimize and address any potential immediate health or safety hazard, to limit potential impacts to the smallest possible area, and to facilitate clean-up and

disposal activities. In general, containment measures may include construction of temporary containment berms, diversion channels, dikes across downgradient drainage channels, and the use of hay, straw, sand, or synthetic sorbent materials.

Protective gear, liquid containment booms, lime for acid neutralization, and waste disposal bins will be maintained in an easily accessed area. Any free dry or liquid chemical released outside of the PTF containment area will be cleaned up as soon as possible.

6.1.3 Discharge of Non-Hazardous Materials Outside of Containment

In the event of any unauthorized discharge pursuant to A.R.S.§49-201(12) of non-hazardous materials from the facility, Florence Copper shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed, and the site cleaned up as soon as possible. Florence Copper shall notify the ADEQ Water Quality Compliance Section within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

6.2 Temporary Interruption of Operations

Temporary interruption of operations is defined as a process or Facility shutdown, generally limited to a few minutes to an hour, and for not more than 60 days. A temporary interruption may be non-intentional, such as a power failure, or intentional for regular maintenance purposes, such as inspection or replacement of mechanical equipment or to manage wells in the Florence Copper's in-situ copper recovery (ISCR) operations.

If a power outage occurs during normal operations, all pumps will cease to operate except the plant firewater pump, which will have a diesel operated fire pump. If the power outage is expected to last more than 48 hours, or the well monitoring system indicates a potential loss of hydraulic control, Florence Copper will install temporary portable generators in the wellfield area to maintain hydraulic control.

Once power is restored, the recovery wells will be turned on first, followed by the injection wells. Once the in-situ copper recovery process resumes, it will be inspected to make sure all control devices are in proper working condition.

If any set of injection or recovery headers is turned off for maintenance, Florence Copper will assure hydraulic control is always maintained.

6.3 Operational Alerts

The wellfield, pipelines and all processing facilities are equipped with sophisticated monitoring systems designed to detect and address accidental releases or discharges. This section briefly describes the monitoring systems, and steps through the contingency plans for responding to various operational alerts that may occur when a monitoring system alarm activates. The discussion begins with contingency planning for the processing facilities.

6.3.1 Maintaining Discharge Control in the Tank Farm and Related Infrastructure

The tanks in the Tank Farm are fitted with level indicators and high-level alarms. Level indicator and alarm signals are routed to the control room, which is staffed 24-hours a day. If a pipeline fails, signified by a rapid change in level, or a tank high-level alarm activates, an alarm will actuate in the control room. The operator will respond by adjusting flows into and out of that system. If an adjustment cannot be made and the alarm continues, the feed pumps to the tank will be shut down automatically. In the case of system failure, any tank overflow will report to the collection sump which in turn will cause shutdown of feed to the tank, except in the case of rainfall.

The operators will assure that the back-up systems are working as part of their daily and weekly inspection and system verification checks.

6.3.2 Surface Delivery/Collection Conduits

The main process pipelines to and from the SX/EW plant to the Wellfield system are contained inside lined channels. The pipelines are equipped with flow-monitoring devices. If a device senses a drop in flow rate signifying a pipeline failure, an alarm will activate in the control room and the feed pump to the line will be shut down. Any released pipeline solutions will be captured in control sumps, and the solutions will be pumped back into the process systems.

Any solution release outside of containment will be reported to the Environmental Department. Any free liquid released on the ground will be contained and mitigated, and the soil in the area removed as needed and the area cleaned up. Any breach in the surface delivery system will be repaired prior to that portion of the system being reactivated. The Environmental Department is responsible for reporting releases to the appropriate state and federal agencies.

6.3.3 Maintaining Hydrologic Control in Well Field

6.3.3.1 Significant Variation in Solution Recovery Rates

The volume of solution pumped from the recovery wells must exceed the volume injected on an average daily basis, every day. The operator will monitor the solution volumes into and out of the system and adjust the solution rates whenever the injection volume exceeds the recovered volumes. In order to control solutions and minimize the unnecessary capture of fresh water into the system, the recovered volumes will be maintained close to the injected volume.

6.3.4 Loss of Hydraulic Control

A loss of hydraulic control occurs when the amount of fluids injected during a 24-hour period exceeds the amount of fluid recovered for the same 24-hour period. Loss of hydraulic control is also indicated by a less than 1-foot differential observed in any pair of observation and recovery wells averaged over a 24-hour period. Within 24 hours of becoming aware of an Alert Level exceedance as listed in Section 4.2, Table 15 in the APP for the loss of hydraulic control lasting more than 24 hours, the Emergency Response Coordinator or designee will:

1. Notify the ADEQ Water Quality Compliance Section within one (1) day of becoming aware of the alert level exceedance;
2. Adjust flow rates at injection/recovery wells until the recovery volume is greater than the injected volume;
3. Conduct an inspection: testing of piping and wellhead for leaks, injection and recovery lines, pumps, flow meters, totalizers, pressure gauges, pressure transducers, and other associated facilities;
4. Review recent process logs, continuous transducer recordings, meter readings, and other operational control information to identify any unusual occurrences;
5. Initiate pressure testing of the appropriate wells if the loss of fluids cannot be determined to be caused by a surface facility failure; and
6. Repair system as necessary.
7. Within one week a report shall be submitted to ADEQ Groundwater Protection Value Stream which will include, but not be limited to providing the following information: a) injected volume

in the period prior to the alert level exceedance, b) recovered volume in the period prior to the alert level exceedance, c) corrective action taken.

6.3.5 Exceeding the Injection Pressure Maximum

A pressure transducer will be installed on each injection well and will be monitored in the control room. If for any reason the injection pressure exceeds a pre-set alert limit (AL) and the maximum pressure set for the system is exceeded, Florence Copper Personnel shall:

1. Immediately make flow adjustments to reduce the pressure below alert the level;
2. Immediately investigate to determine the cause of the pressure exceedance, including:
    a. Inspection, testing, and assessment of the current condition of all components of the injection system that may have contributed to the AL being exceeded, which may include taking the affected well(s) out of service;
    b. Review of all data, test results and other operational control information to identify any unusual occurrences; and
    c. Repair system as necessary.
3. Within 30 days of an AL being exceeded, Florence Copper shall submit the related data to the ADEQ Water Quality, along with a summary of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.

6.4 Maintaining Discharge Control in Ponds

6.4.1 Process Water Impoundment and BHP Pond

The Process Water Impoundment and BHP Pond are double-lined with a leak collection and recovery system (LCRS) and with the required 2-foot freeboard is maintained. The PWI pond is fitted with an alarm that actuates when leakage collects in the pond sump above a pre-determined level. An alarm will prompt an inspection by the operator on duty. The pond sumps will be pumped back into the Ponds and the volume pumped will be measured and recorded. If daily pumped flows exceed a pre-determined Action Leakage Rate (ALR) or Rapid Leakage Rate (RLR), or if leachate accumulates in a pond sump at a rate greater than can be removed, the operator will notify his/her immediate supervisor, and the Environmental Department, who will activate the response to this operational alert as described in Section 2.6.2.2 and 2.6.2.3 of the APP. An Alert Level Monitoring Form will be filled out that identifies the pond, the date, time, and rate and volume of leakage, and the pond water elevation.

If the leakage rate exceeds the ALR, the operator will ensure all collected fluid is pumped back to the pond and will identify and repair all identified points of leakage.

If the leak is determined to exceed the RLR, the Emergency Response Coordinator will be notified, and all flows to the pond will be diverted within 24 hours. The liquid level in the pond will be lowered or the pond completely drained, as necessary, until the leak is identified and repaired. The LCRS systems will be continuously monitored while the pond is refilled, and the incident will be reported to ADEQ in the next Quarterly Monitoring report.

6.4.2 Run-off Pond

The Run-off Pond is constructed with 60-mil HDPE liner and is capable of containing up to 49,000 gallons of fluid. The pond will be maintained with a minimum 2-foot freeboard. Along with daily visual inspections, a water level pressure transducer is installed in the pond and is monitored by the operators. If the daily

inspection or the level transducer indicates levels encroaching the freeboard limit in the run-off pond, liquid will be pumped back into the process or to the Process Water Impoundment.

6.5 Catastrophic Events

As noted in Section 3.1, catastrophic events may occur that include vandalism, fire, flood, or civil unrest. If there is a risk that an imminent release may occur, Facility personnel will take immediate measures to protect the environment and human health. These may include modifying or temporarily interrupting operations, or other measures as deemed appropriate and necessary by the emergency response coordinator.

Any extraordinary event that causes an unauthorized discharge will activate the emergency response procedures for notification as specified under Section 3.2.

6.6 Exceeding ALs in – Groundwater Monitoring

The contingency plan for exceeding an AL, AWQS or AQL in a groundwater sample will be in accordance with procedures as outlined in Part 2.6.2.5 of the APP, and in A.A.C. R18-9-A204. It consists of collecting additional groundwater samples to verify the exceedance or violation, and associated reporting and mitigation planning, if necessary.

6.6.1 Contingency Plan for an AL or AQL Exceedance in Groundwater

1. If an Operational Condition for BADCT as described in Section 4.2, Table 14 of the APP has been exceeded, Florence Copper shall:
    a. Within 5 days after receiving laboratory confirmation of an AL being exceeded, the Environmental Department shall notify the ADEQ Water Quality Compliance Section and submit written confirmation within 30 days of receiving the laboratory confirmation of an AL exceedance.
2. If the results indicate an exceedance of an AL, Florence Copper shall collect a verification sample of groundwater from the well within 5 days from laboratory confirmation. If the verification sample does not confirm that an exceedance has occurred, the Emergency Response Coordinator shall notify ADEQ Water Quality Compliance Section of the results. No further action is required, and Florence Copper shall continue with routine monitoring.
3. If verification sampling confirms that the AL has been exceeded, the Emergency Response Coordinator shall increase the frequency of monitoring to monthly and analyze for the entire list of parameters listed for quarterly sampling and increase the frequency to quarterly for the list of semi-annual parameters. The monthly sampling shall continue until the parameter(s) has remained below the AL for three consecutive monthly sampling events. In addition, the Emergency Response Coordinator shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging facilities and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality from existing wells

6.7 Remedial Action

In the unlikely event of a chemical release, or an AL or AQL exceedance requires remedial action, Florence Copper will conduct an investigation and prepare for ADEQ's approval a site remediation plan based upon the degree of clean-up required to restore groundwater quality to AQLs at the POC wells.

7.0 Sulfuric Acid and Other Hazardous Chemical Release Response

Sulfuric acid is used in the in-situ leaching process. Sulfuric acid is a highly regulated substance and is classified as an Extremely Hazardous Substance under the Emergency Planning and Community Right-To-Know Act (EPCRA: 40 CFR 355). Facilities with more than the threshold planning quantity (TPQ) of this substance are required to notify state and local planning commissions. The TPQ for Sulfuric acid is 1,000 pounds. Sulfuric acid is also a listed CERCLA (Comprehensive Environmental Response Compensation and Liability Act: 40 CFR 302) Hazardous Substance. Notification to state, local, and national response centers is required for releases of a reportable quantity. The reportable quantity (RQ) for sulfuric acid is 1,000 pounds.

As described in Section 3.3, the Production Test Facility is designed to capture and contain any releases or leakages resulting from the unloading or storage of sulfuric acid. In the event sulfuric acid is released outside of containment, an assessment will immediately be made as to the quantity, concentration, and location of the release for reporting and remediation purposes. Depending on the quantity and concentration, the area will immediately be neutralized with lime and later remediated in compliance with regulatory guidelines.

7.1 Clean-up Procedures

Clean up of potentially hazardous wastes requires special precautions, handling, and disposal measures. Clean-up of large hazardous waste releases may be contracted to an environmental clean-up firm. During clean-up operations all personnel involved in the clean-up will wear the appropriate personal protective equipment (PPE). All contaminated materials, including clean-up supplies and protective gear will be placed in approved hazardous waste containers and labeled to clearly identify the containers containing hazardous materials in compliance with all Federal, State, and Local regulations.

7.2 Local Emergency Responder Coordination

Florence Copper has contracted with the Town of Florence to provide emergency response services for the Production Test Facility on the State-lease land and the Florence Copper property.

8.0 Reporting and Recordkeeping Requirements

[A.R.S.§49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

8.1 Agency Reporting

Depending on the nature of the release or alert level exceedance, the appropriate agencies will be notified as described in Sections 3.2, 6.3, and 6.6.

8.2 Operation Inspection/Log Book Recordkeeping

A signed copy of Florence Copper permits shall always be maintained at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by the permits shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

- Name of inspector;

- Date and shift inspection was conducted;
- Condition of applicable facility components;
- Any damage or malfunction, and the date and time any repairs were performed;
- Documentation of sampling date and time;
- Any other information required by this permit to be entered in the log book; and
- Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

This Contingency and Emergency Response Plan is intended to serve as guidance for employees and management in meeting regulatory requirements, while ensuring the health and well-being of Florence Copper's employees, the community, and the environment. A controlled copy of this plan will be maintained in the locations where day-to-day decisions for operating the Florence Copper Production Test Facility and wellfield are made.

APPENDIX A

Location Maps

Written Directions to FCI Facilities

Directional Map to FCI Facilities

Production Test Facility (PTF) Chemical Storage Locations for Emergency Responders

Administrative Area Chemical Storage Locations

Directions to Florence Copper

From N AZ 79 (N Pinal Pkwy)
Turn West onto Hunt Highway
Travel approximately 2.1 miles
Turn Left into the Florence Copper Main Gate
Check in with Security, then proceed
At the stop sign:
Turn Left for the Administrative Building
Turn Right for the Production Test Facility and Wellfield

I 10 from the south
Take Exit 211 toward AZ-87 N/Coolidge/Florence
Merge onto Eisenhower St (0.58 mi)
Eisenhower becomes State Hwy 87/AZ – 87/AZ-84 (0.27 mi)
Take S State Rte 87/AZ-87 toward Coolidge/Florence (18.73 mi)
Turn Rt. Onto E. Hwy 287/AZ-287 (3.04 mi.)
Turn Lt. onto N. Attaway Rd. (3.01 mi)
Turn Rt. Onto Hunt Hwy (3.26 mi)
Florence Copper Inc., 1575 W. Hunt Hwy is on the Right
Check in with Security, then proceed
At the stop sign:
Turn Left for the Administrative Building
Turn Right for the Production Test Facility and Wellfield

I-10 from the north
Take Exit 185 AZ-187/AZ-387 toward Coolidge/Florence (0.33 mi)
Keep Left to take ramp toward Coolidge/Florence (0.3 mi)
Turn Left onto N Pinal Ave/AZ-387/AZ-187 (0.40 mi)
Turn Rt onto State Hwy 387/AZ-387 (6.92 mi)
Turn Rt onto State Hwy 87/AZ-87 (7.00 mi)
Stay straight onto E Hwy 287/AZ-287 (2.95 mi)
Turn Lt. onto N. Attaway Rd. (3.01 mi)
Turn Rt. Onto Hunt Hwy (3.26 mi)
Florence Copper Inc., 1575 W. Hunt Hwy is on the Right.
Check in with Security, then proceed
At the stop sign:
Turn Left for the Administrative Building
Turn Right for the Production Test Facility and Wellfield

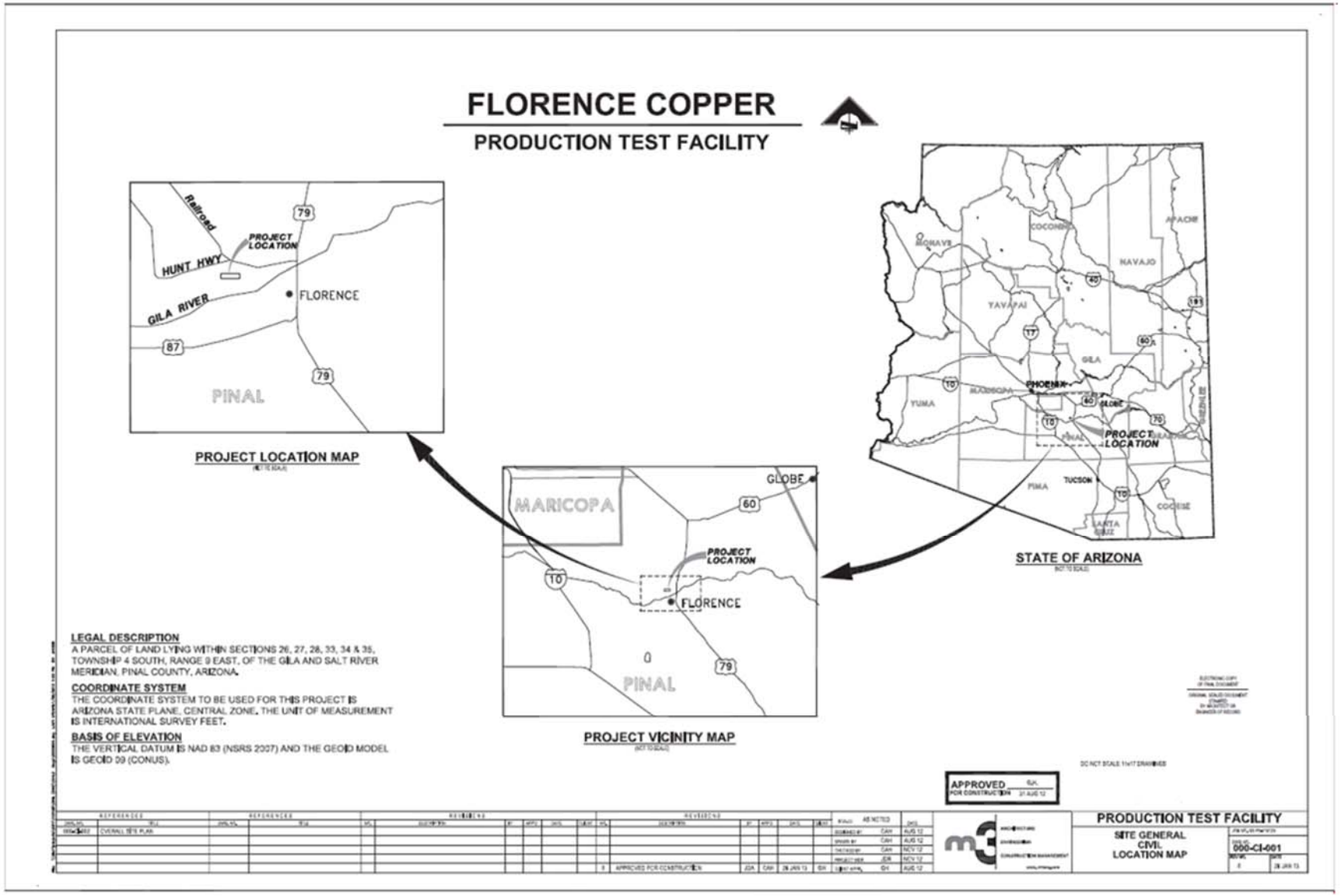

Figure 1. Florence Copper, Inc. Location

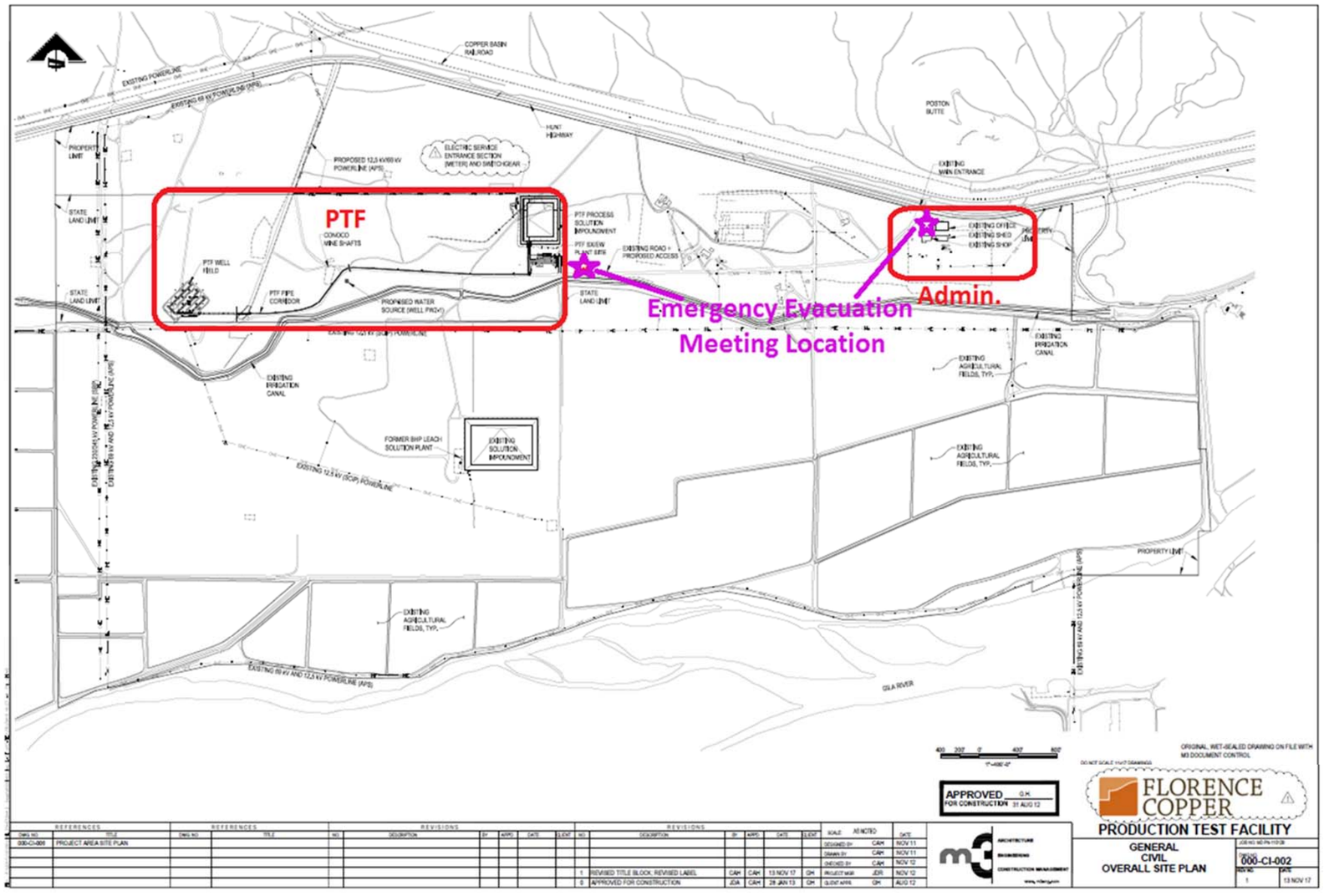

Figure 2. Florence Copper, Inc. General Site Map

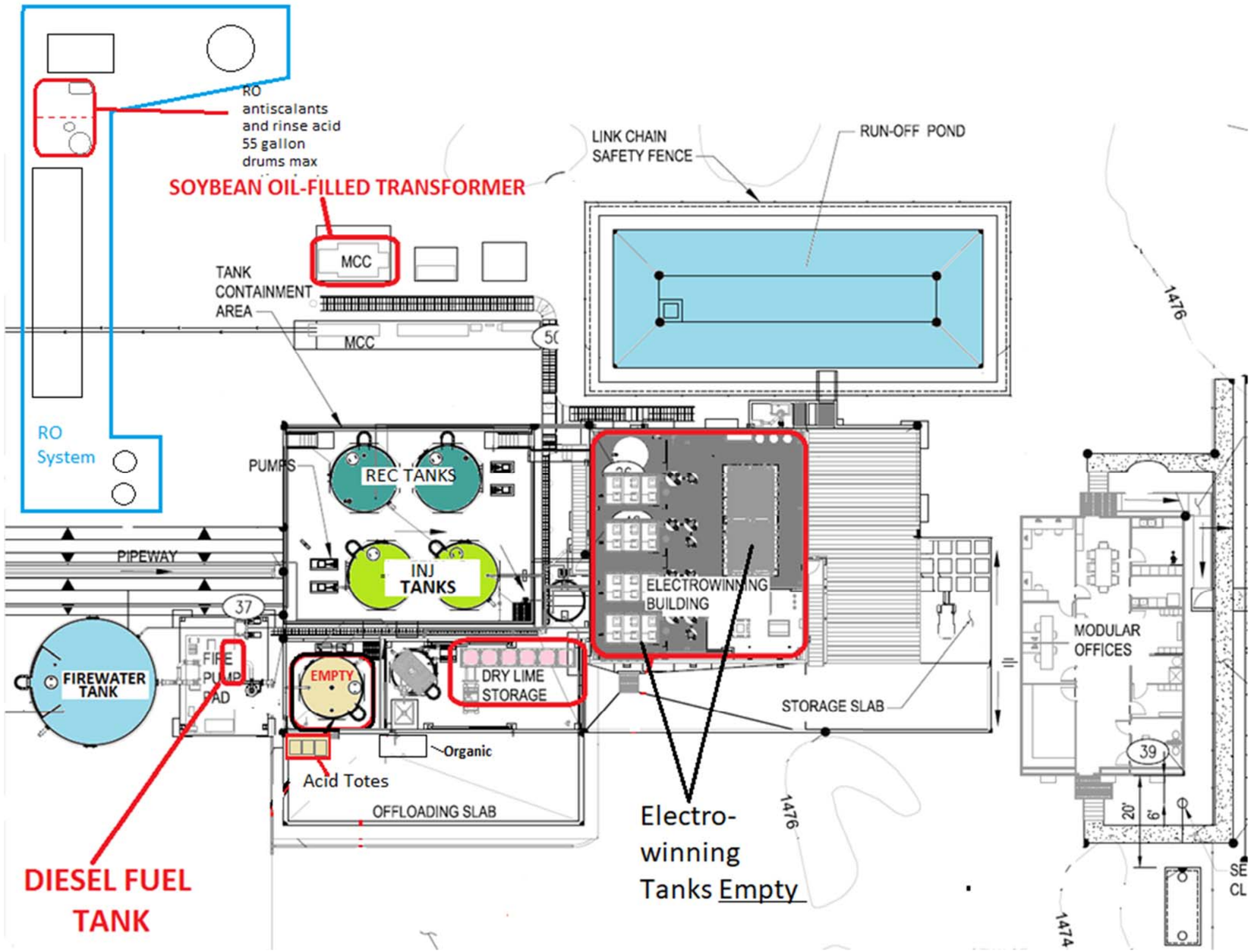

Figure 3. PTF Facility

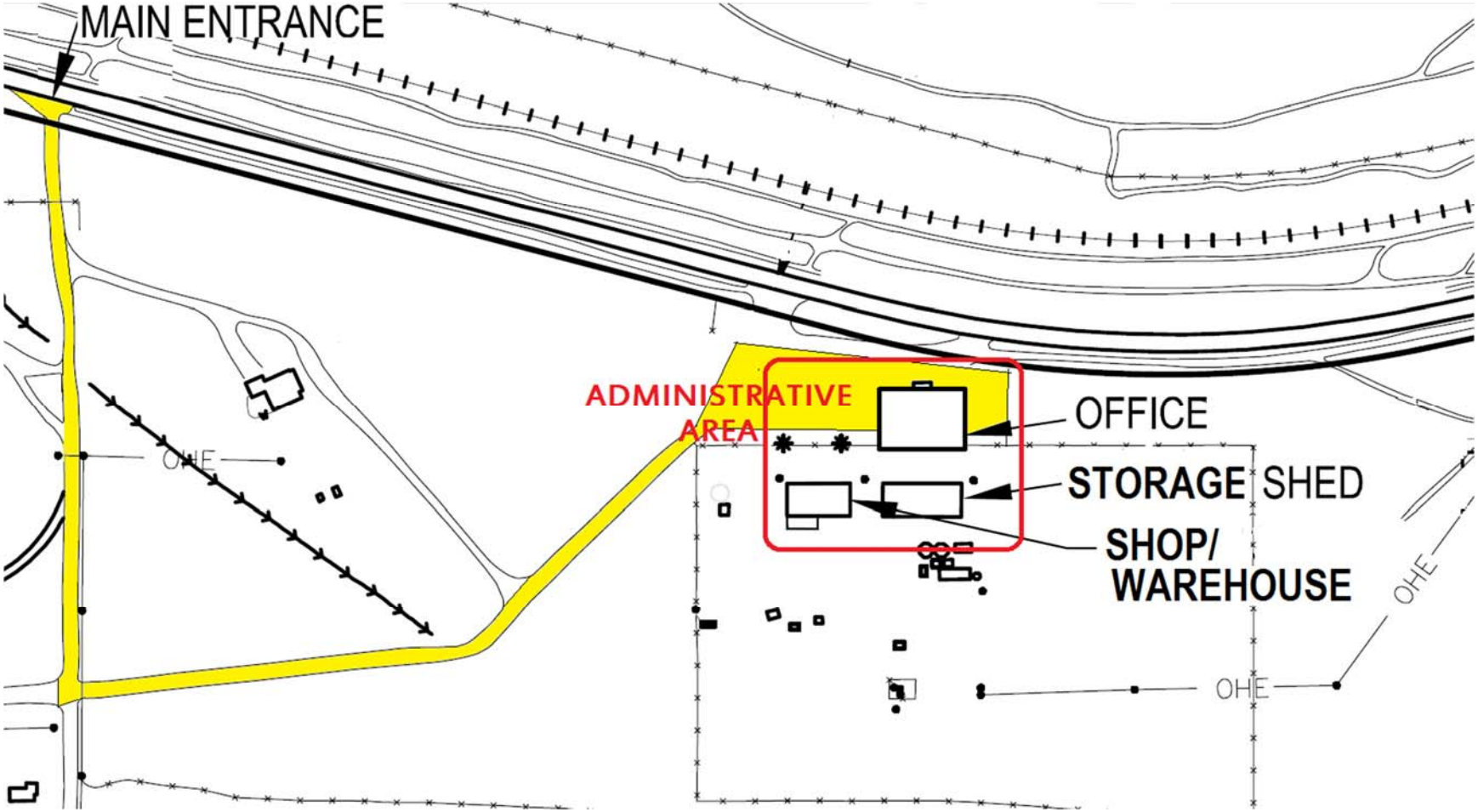

Figure 4. Administrative Area

APPENDIX B
RESPONSE ACTION GUIDANCE
POTENTIAL HAZARDOUS CHEMICALS

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Potential hazardous chemicals used at Florence Copper, and their reportable quantities (RQ):

LIQUIDS

ACORGA M5774 Solvent Ext Reagent – (SARA 313 Reporting - Phenol, 4-nonyl-, branched) – Tote, Extractant tanks RQ = 16 lbs / 2.2 gallons

Chlorine 12.5% - 55 gallon drums[1] – RQ =100 lbs / 10 gallons

Petroleum products, used oil – RQ = 25 gallons

Sodium Hydroxide 50% soln – 3500 lb tote – RQ 1,000 lbs /

Sulfuric Acid 93% (SARA 313 reporting) – Totes – RQ=1,000 lbs / 65 gallons

Transformer fluids (non-PCB), mineral oil, dielectric fluid – RQ = 25 gallons

SOLIDS

Calcium Hydroxide (Hydrated Lime) – 10-40 supersacks – No RQ

Cobalt Sulfate 33%, granular – RQ = 3030 lbs.

Constant Chlor Plus Chlorine Briquettes – 50-lb bucket – RQ = 12.5 lbs.

OTHER

Hazardous Waste – See specific waste for RQ

Always refer to the product Safety Data Sheet (SDS) located on the share drive or in the binder in the Process Test Facility Control Room for specific handling procedures and possible hazards.

[1] Rarely stored on site

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Subject: **ACORGA ®**M5774 Solvent Extraction Reagent

LOCATION: PTF **TYPICAL VOLUME ON SITE:** 550 gallons

RESPONSE ACTION GUIDANCE

ACORGA ®M5774 **- Mixed Molecular Formula**

5-Nonyl-2-hydroxy-benzaldoxime, 30-60% CAS 174333-47-8
Petroleum distillate hydrotreated light, 7-13% CAS 64742-47-8
Phenol, 4-nonyl-, branched, 0.05-1.1% CAS 84852-15-3

Physical/Chemical Properties

Causes eye and skin irritation

Description	Liquid	**Flash Point**	239°F
Odor	None	**Boiling Point**	N.A.
Color	Clear amber	**pH**	N.A.
Solubility	Insoluble	**Freezing Point**	N.A.
Density		**Specific Gravity**	0.96-0.98@25°C
Reportable Quantity	16 lbs.	7.31 lbs/gal	2.2 gallons

SUPPLIER: See Supplier List at the end of this Appendix

Storage Area: SX/EW building 2nd floor electro winning tanks and in totes on the first floor.

Overview

ACORGA ®M5774 is a chemical extractant reagent used in the copper extraction electrowinning process at the Process Test Facility.

Hazards

For specific health and other hazards and precautions refer to a Safety Data Sheet for product from which the waste was generated.

GENERAL PRECAUTIONS FOR SAFE HANDLING

- Be sure area is well ventilated

NFPA Rating

Health	Flammability	Reactivity	Other
2	1	0	

Special Safety Equipment Recommended

- Chemical Splash-proof goggles or face shield
- Impermeable Gloves

Accidental Release Response

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

- In addition to PPE listed above, wear impermeable boots
- Contain liquid if possible
- Cover with inert absorbent material
- Sweep up absorbent material and place in an appropriate waste disposal container
- Flush affected area with water

Subject: **Calcium Hydroxide** (Hydrated Lime) (**$Ca(OH)_2$**)

LOCATION: East Warehouse, PTF **TYPICAL VOLUME ON SITE:** 9-10 Totes

RESPONSE ACTION GUIDANCE

Calcium Hydroxide ($Ca(OH)_2$)			**CAS 1305-62-0**
Physical/Chemical Properties			
Caustic material – can cause severe irritation of eyes, skin, respiratory tract (if inhaled), and gastrointestinal tract (if swallowed)			
Description	Solid powder	**Flash Point**	Not applicable
Odor	Odorless	**Boiling Point**	Decomposes
Color	White	**pH**	12.44
Solubility	Relatively insoluble	**Freezing Point**	N.A.
Relative Density	0.4-0.7 g/cm^3	**Specific Gravity**	2.24
Reportable Quantity	Not listed		
SUPPLIER: See Supplier List at the end of this Appendix			

Overview

Calcium Hydroxide, a.k.a Hydrated Lime is a non-combustible solid used in the Process Test Facility to neutralize process water. This product is shipped and stored in totes.

Hazards

For specific health and other hazards and precautions refer to a Safety Data Sheet for product from which the waste was generated.

GENERAL PRECAUTIONS FOR SAFE HANDLING

Calcium Hydroxide is considered an irritant. It is corrosive to eyes, and will cause skin irritation, respiratory irritation (if inhaled), and gastrointestinal irritation (if ingested). (Refer to Safety Data Sheet for specific health and other hazards and precautions.) Wear appropriate PPE to avoid exposure, and use outdoors or in a well-ventilated area.

NFPA Rating

Health	Flammability	Reactivity	Other
2	0	0	

Special Safety Equipment Recommended

- Protective goggles
- Protective gloves
- Dust mask

Accidental Release Response

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

Small accidental releases:

- Avoid generating dust.
- Use dry methods to collect released material.
- Store collected material in dry, sealed plastic or metal containers.
- Residue on surfaces may be washed with water or dilute vinegar.

Large accidental release:

- Evacuate area downwind of release site to minimize dust exposure.
- Use dry methods to collect released material.
- Store collected material in dry, sealed plastic or metal containers.
- Residue on surfaces may be washed with water or dilute vinegar.

Subject: **Chlorine, 12.5%** (Sodium Hypochlorite Solution) (NaOCl) Page 1 of 2

LOCATION: East Warehouse, Wellfield **TYPICAL VOLUME ON SITE:** 0-110 gallons

RESPONSE ACTION GUIDANCE

Sodium Hypochlorite Solution (NaOCl)		**(UN 1830 CAS 7681-52-9)**	
Physical/Chemical Properties			
Do not mix acids, ammonia, or other organic or inorganic chemicals with this product.			
Description	Alkaline liquid	**Flash Point**	Not appllicable
Odor	Slight Bleach	**Boiling Point**	Decomposes
Color	Straw Yellow	**pH**	11.2 - 11.4
Solubility	Soluble in water	**Freezing Point**	-20°F
Bulk Density	NA	**Specific Gravity**	1.2 @ 68°F
Reportable Quantity 100% Soln	100 lbs.	@10.0 lb/gal =	80 gallons 12.5% Soln
SUPPLIER: See Supplier List at the end of this Appendix			

Overview:

Sodium Hypochlorite solution in bulk is used in the wellfield for well development and rehabilitation. Smaller, more dilute quantities are used for household cleaning. This substance is classified as an irritant by the OSHA.

Hazards:

Sodium Hypochlorite is extremely caustic. Care should be taken to avoid contact with skin and eyes. For specific health and other hazards and precautions refer to a Safety Data Sheet for this product.

GENERAL PRECAUTIONS FOR SAFE HANDLING

Open containers Carefully. Mix only with water.

NFPA Rating

Health	Flammability	Reactivity	Other
2	0	0	

Special Safety Equipment Recommended:

- Chemical goggles or face shield
- Chemical-resistant, rubber gloves

Accidental Release Response:

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

Small release:

- Flush area with water, or
- Absorb liquid with sand and dispose in accordance with applicable Federal regulations.
- In necessary, neutralize the residue with a dilute solution of lime or other suitable neutralizing agent.

Large release outside of containment:

- Restrict access to release site
- Stop the discharge at its source, if possible
- If discharge is in containment, material should be transferred into an appropriate container for reuse
- If discharge has escaped containment, flush the area with large amounts of water.
- Prevent entry into sewers or waterways until material has been suitably diluted.
- Dispose of waste material at an approved waste treatment/disposal facility.

Subject: **Cobalt Sulfate 33%** **($CoSO_4 \cdot H_2O$)** Page 1 of 2

LOCATION: Solids: East Warehouse, labs

Solution: RTF building, 2nd floor, west side **TYPICAL VOLUME ON SITE:** TBD

RESPONSE ACTION GUIDANCE

Cobalt Sulfate Monohydrate 33% ($CoSO_4 \cdot H_2O$)			**CAS 10124-43-3**
Physical/Chemical Properties			
Harmful if swallowed or inhaled			
Description	Solid crystals	**Flash Point**	Not applicable
Odor	Odorless	**Boiling Point**	1355°
Color	Pink to red transparent crystals	**pH**	No data
Solubility	@ 37F 60.4 g/100 ml	**Freezing Point**	N.A.
Relative Density	0.4-0.7 g/cm^3	**Specific Gravity**	No data
Reportable Quantity 100% Soln	1000 lbs	**RQ for 33% Soln**	3030 lbs
SUPPLIER: See Supplier List at the end of this Appendix			

Overview:

Cobalt Sulfate is a non-combustible solid used in the electrowinning process at the Process Test Facility to enhance cathode copper quality.

Hazards:

For specific health and other hazards and precautions refer to a Safety Data Sheet for this product.

GENERAL PRECAUTIONS FOR SAFE HANDLING

Cobalt Sulfate is harmful if inhaled or if ingested. (Refer to Safety Data Sheet for specific health and other hazards and precautions.) Wear appropriate PPE to avoid exposure, and use in a well-ventilated area.

NFPA Rating

Health	Flammability	Reactivity	Other
2	0	0	

Special Safety Equipment Recommended:

- Chemical safety goggles where dusting or splashing of solutions is possible
- Protective gloves
- Clean, body-covering clothing

Accidental Release Response:

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

- Ensure Adequate Ventilation.
- Wear appropriate PPE.
- Sweep up and containerize for re-use or disposal.
- Vacuuming or wet sweeping may be used to avoid dust dispersal.
- Dispose of waste material following appropriate local and federal guidelines.

Subject: **Constant Chlor Plus Chlorine Briquettes**

LOCATION: PTF, Potable Water Building **TYPICAL VOLUME ON SITE:** 100 lbs. (2 ea. 50 lb buckets)

RESPONSE ACTION GUIDANCE

Constant Chlor Plus Briquettes ($CaClO_2$) 60-80% CAS: 7778-54-3			
Physical/Chemical Properties			
Corrosive			
Description	Solid tablets	**Flash Point**	NA
Odor	Chlorine-like	**Boiling Point**	NA
Color	White	**pH**	10.4 – 10.8
Solubility	Soluble in water	**Freezing Point**	NA
Density	1.9g/cc	**Molecular Weight**	143 g/mol
Reportable Quantity	13 lbs		
SUPPLIER: See Supplier List at the end of this Appendix			

Overview:

Constant Chlor Plus Briquettes are used in the potable water systems at the PTF and at the Potable water building. Typically one 50-lb bucket is stored at each area.

Hazards:

For specific health and other hazards and precautions refer to a Safety Data Sheet for this product.

GENERAL PRECAUTIONS FOR SAFE HANDLING

Avoid inhalation of dust and fumes. Avoid contact with eyes, skin and clothing. (Refer to Safety Data Sheet for specific health and other hazards and precautions.) Wear appropriate PPE to avoid exposure, and use in a well-ventilated area.

NFPA Rating

Health	Flammability	Reactivity	Other
2	0	0	

Special Safety Equipment Recommended:

- Chemical safety goggles where dusting or splashing of solutions is possible
- Protective gloves
- If exposure is possible to a large portion of the body wear a full impervious suit

Accidental Release Response:

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

Air Release –

Suppress vapors with water fog

Water Release –

- Material is soluble in water. Dike area to prevent spread of liquid.
- Monitor for available chlorine and pH
- Ensure Adequate Ventilation.
- Wear appropriate PPE.

Land Release –

- If release quantity ≥100 lbs or when dust exposure is possible
- Keep material away from any combustible material
- Using a clean broom or shovel Place all recovered product into plastic bags
    - Place those bags into a clean dry disposal container, properly marked and labeled
        - Do not seal containers tightly
        - Move disposal containers to an isolated area outdoors
- Dispose of waste material following appropriate local and federal guidelines

Subject: **Hazardous Waste**

LOCATION: Hazardous Waste Accumulation Area **TYPICAL VOLUME ON SITE: Currently 0**

RESPONSE ACTION GUIDANCE

Overview:

The PTF has been designed to produce very little waste. However, from time to time, hazardous waste may originate from various sources at the facility. Items that have been identified and designated as hazardous waste are labeled accordingly.

Hazards:

For specific health and other hazards and precautions refer to a Safety Data Sheet for product from which the waste was generated.

Special Safety Equipment Recommended:

- Dependent on the hazards associated with a given waste – refer to an appropriate SDS as described above.

Response:

- Restrict access to the release area.
- Stop the release at its source if possible.
- Contain the release as close to the source as safe and practical.
- For liquid hazardous wastes recover as much of the liquid as possible into tighthead drums meeting DOT specifications for the material; soak up the remainder using absorbent material and place this into open top drums meeting DOT specifications for the material, and secure with lids.
- For solid hazardous wastes recover the material into open top drums meeting DOT specifications for the material and secure with lids.
- Obtain approximately 1-quart sample of the released material.

Subject: **Petroleum Products and Used Oil** Page 1 of 2

LOCATION: Firewater skid at the PTF (tank),
Satellite collection PTF, haz waste disposal area **TYPICAL VOLUME ON SITE:** ~500 gallons diesel

Response Action Guidance

Diesel Fuel		**CAS 68476-34-6**	
Physical/Chemical Properties			
Flammable			
Description	Liquid	**Flash Point**	>125°F
Odor	Mild, petroleum distillate odor	**Boiling Point**	320-700°F
Color	Clear, straw yellow	**pH**	ND
Solubility	Negligible	**Freezing Point**	NA
Relative Density	(Vapor) > 1.0	**Specific Gravity**	0.82-0.88
Reportable Quantity	25 gallons		

Gasoline		**CAS 86290-81-5**	
Physical/Chemical Properties			
Flammable			
Description	Liquid	**Flash Point**	-45°F
Odor	Strong, sweet-ether like	**Boiling Point**	85-437°F
Color	Translucent, straw-colored or lt. yellow	**pH**	ND
Solubility	Negligible to slight	**Freezing Point**	ND
Relative Density		**Specific Gravity**	0.70-0.78
Reportable Quantity	25 gallons		

Overview:

Petroleum products are used as fuel, for lubrication purposes, and in the solution extraction/electro-winning process. Used oil is generated from the lubrication requirements associated with surface equipment and some pumps. Florence Copper has one double-lined, 500-gallon diesel fuel tank to fuel the emergency generator for the fire water pump at the PTF. Uncontaminated used oil will be collected in a 35 – drum which is labeled and stored on a secondary containment pallet at the PTF or the waste accumulation area. Florence Copper automobiles are fueled off site; aside from small gas cans (1 – 5 gallons) there is no gasoline containment in the plant area.

Hazards:

Fire and explosion are potential hazards for pers-nnel responding to releases of gasoline, diesel fuel, or oil products. Refer to a Safety Data Sheet for the item in question for specific health and other hazard precautions.

NFPA Rating

	Health	Flammability	Reactivity
#1 or #2 Diesel	0	2	0
Lube, Hydraulic, Used Oil	0	1	0
Gasoline	1	3	0

Special Safety Equipment Recommended:

- Chemical goggles, full face shield
- Impervious gloves, boots, and whole-body protection
- Organic respirators if mists are present and exceed concentration exposure limits
- Self-contained breathing apparatus (SCBA) for incidents involving fire

Response:

- Restrict access to the release site and evacuate area, if necessary.
- Ensure that potential ignition sources are kept away from the area.
- Stop the discharge at its source.
- If the release is confined to a tank containment basin, recover the liquid into a suitable container.
- If the release has escaped a containment basin, contain the liquid in the smallest area possible using berms of soil and then recover the liquid material into a suitable container.
- For small releases (≤55 gallons), contain and absorb using absorbent material available at the PTF. Squeeze excess oil out of rags into used oil container and dispose of rags in appropriate container. Used absorbent material should be placed into a barrel for disposal. Soils that have come into contact with the petroleum product should be removed and stored in appropriate containment.
- For large releases, pump out as much of the material as possible into a used oil container. Use absorbent material to collect remainder. Remove any contaminated soil and place in the appropriate barrel for disposal.

Subject: **Sodium Hydroxide 50% solution** (Caustic soda) (NaOH)

LOCATION: RO **TYPICAL VOLUME ON SITE:** Tote: 3500 lbs

RESPONSE ACTION GUIDANCE

Sodium Hydroxide Solution (NaOH)		**(CAS 1310-73-2)**	
Physical/Chemical Properties			
Danger! Highly corrosive liquid that reacts with strong acids.			
Description	Caustic liquid	**Flash Point**	Not available
Odor	Odorless	**Boiling Point**	293 degrees F
Color	Colorless to slight color	**pH**	14
Solubility	Soluble in water	**Freezing Point**	
Bulk Density	NA	**Specific Gravity**	1.53 @ 68°F
Reportable Quantity 100% Soln	1000 lbs.	@12.7 lb/gal =	158 gallons/2000 lbs 50% Soln
SUPPLIER: See Supplier List at the end of this Appendix			

Overview:

Sodium Hydroxide solution in bulk is used in the RO process for scale removal. This substance is classified as a corrosive.

Hazards:

Sodium Hydroxide is extremely caustic. Care should be taken to avoid contact with skin and eyes, or inhalation of vapors. For specific health and other hazards and precautions refer to a Safety Data Sheet for this product.

GENERAL PRECAUTIONS FOR SAFE HANDLING

Avoid contact with eyes, skin and clothing. Use adequate ventilation. Avoid breathing vapors.

NFPA Rating

Health	Flammability	Reactivity	Other
3	0	0	

Special Safety Equipment Recommended:

- Full-face respirator with multi-purpose combination respirator cartridge if danger of inhalation is present
- Chemical-resistant, rubber gloves
- Tight-fitting safety goggles
- Protective work clothing including full length chemical apron

Accidental Release Response:

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

Small release:

- Use personal PPE and avoid breathing vapors
- Absorb liquid with inert absorbent material
- Dispose of material according to local, state, and federal regulations
- Clean surface thoroughly

Large release outside of containment:

- Restrict access to release site
- Stop the discharge at its source, if possible
- Prevent entry into sewers or waterways.
- If discharge is in containment, material should be transferred into an appropriate container for reuse if it is safe to do so.
- Absorb with vermiculite, dry sand or earth and place in container
- Following product recovery, flush with water
- Dispose of waste material at an approved waste treatment/disposal facility.

Subject: **Sulfuric Acid, 93%** (H_2SO_4)

LOCATION: Process Test Facility Tank;
Dilute solution in pipelines, raffinate, PLS **Typical volume on site:** 10420 gal (max)

RESPONSE ACTION GUIDANCE

SULFURIC ACID (H_2SO_4) (UN 1830 CAS 7664-93-9)			
Physical/Chemical Properties			
Danger! Highly corrosive, toxic liquid that reacts with many chemicals and metals.			
Description	Acid liquid	**Flash Point**	Not flammable/combustible
Odor	Acrid odor	**Boiling Point**	276 to 330°C
Color	Colorless, oily	**Freezing Point**	-11°C
Solubility	Soluble in water	**pH**	<1
Vapour Density	Heavier than air (3.4)	**Specific Gravity**	Sinks in water (1.67 to 1.84)
Reportable Quantity	1000 lbs.	@15.37 lb/gal =	65 gallons
SUPPLIER: See Supplier List at the end of this Appendix			

Overview:

EXTREMELY HAZARDOUS MATERIAL

Sulfuric Acid is used in the in-situ process at Florence Copper to leach copper within the oxide ore body. Full-strength sulfuric acid (93%) is stored in a tank at the Production Test Facility and is diluted for in-situ injection. This dilute solution is transported via pipeline to the injection wells. The pipelines and wellheads are located in lined trenches.

Hazards:

Full strength sulfuric acid is EXTREMELY CORROSIVE. Causes severe burns and / or eye damage. Harmful or fatal if swallowed. Reacts violently with water. Harmful if inhaled. Mist: Causes respiratory irritation. (Refer to Safety Data Sheet for specific health and other hazards and precautions.)

NFPA Rating

Health	Flammability	Reactivity	Other
3	0	2	ACID

Special Safety Equipment Recommended:

- Chemical goggles and face shield
- Acid resistant aprons or suits with trouser legs outside (not tucked in) rubber boots
- Chemical-resistant, impervious gloves
- Respirator based on known or anticipated exposure levels

Accidental Release Response

CONSIDER ACTIONS ONLY IF SAFETY PERMITS

Small accidental release:

- Cover with DRY earth, sand or other non-combustible material or absorb with an inert dry material.
- Place in a loosely covered plastic waste disposal container
- In necessary, neutralize the residue with a dilute solution of lime or other suitable neutralizing agent.

Large accidental release Outside of Containment:

- Restrict access to release site
- Stop the discharge at its source, if possible
- If discharge is in containment, material should be recycled back through the process
- If discharge has escaped containment, or if the discharge occurred elsewhere, contain the release in the smallest area possible using berms of dry soil, sand or other non-combustible inert material.
- Prevent entry into sewers or waterways.
- Neutralize with lime or other suitable neutralizing agent.
- Ensure adequate decontamination of tools and other equipment following clean up.
- Obtain approximately 1-quart sample of the released or neutralized material.
- Dispose of waste material at an approved waste treatment/disposal facility

Neutralization Reactions:

DO NOT RANDOMLY ADD WATER TO STRONG ACID! May cause explosion. Neutralize with water and lime under supervision of Response Coordinator to create calcium sulfate and water.

$H_2SO_4 + Ca(OH)_2 => CaSO_4 + 2\ H_2O$

Subject: **Transformer Fluids**

LOCATION: PTF & Wellfield Transformers (mineral oil); **Typical volume:** 500-550 gallons/transformer
BHP tank farm & behind main office (Dielectric); **Typical volume:** 500-500 gallons/transformer

Response Action Guidance

Mineral Oil		**CAS 8012-95-1**	
Physical/Chemical Properties			
Flammable			
Description	Clear liquid	**Flash Point**	275°F
Odor	NA	**Boiling Point**	424.4 – 1189.4°F
Color	Colorless	**pH**	NA
Solubility	Insoluble in water	**Freezing Point**	NA
Relative Density	NA	**Specific Gravity**	0.906 – 0.914
Reportable Quantity	25 gallons		

Dielectric Fluid (non-PCB)		**CAS unknown**	
Physical/Chemical Properties			
Flammable			
Description	Viscous Liquid	**Flash Point**	NA
Odor	Odorless	**Boiling Point**	NA
Color	Translucent, Straw-colored or clear	**pH**	NA
Solubility	Very Low	**Freezing Point**	NA
Vapor Density	NA	**Specific Gravity**	NA
Reportable Quantity	25 gallons		

Overview:

The transformers at Florence Copper are classified as non-PCB. These transformers use either mineral oil or silicone dielectric fluid.

Hazards:

Avoid breathing mists. Refer to a Safety Data Sheet for the fluid in question for specific health and other hazards and precautions

NFPA Rating (Mineral Oil)

Health	Flammability	Reactivity	Other
0	1	0	0

Special Safety Equipment Recommended:

- Eye/face protection
- Impervious gloves, and impervious clothing if body is exposed
- Organic respirators if mists are present and exceed concentration exposure limits
- Self-contained breathing apparatus (SCBA) for incidents involving fire

Response:

- Restrict access to the release site.
- If the release is confined to a containment basin, recover as much liquid as possible into tighthead steel drums meeting DOE Specification UN1A1/X1.8/300; soak up the remainder using absorbent material and place this into open top steel drums meeting DOT specification UN1A2/X426/S and secure with lids.
- If the transformer does not have a containment basin, contain the liquid using berms of soil or absorbent materials. Recover as much liquid as possible into tighthead steel drums meeting DOE Specification UN1A1/X1.8/300; soak up the remainder using absorbent material and place this into open top steel drums meeting DOT specification UN1A2/X426/S and secure with lids.
- Obtain approximately ½ pint sample of the fluid for analysis.

Chemical Supplier List

ACORGA ® M5774

Cytec Industries, Inc.
504 Carnegie Ctr
Princeton, NJ 08540
(913) 357-3193

Calcium Hydroxide (Lime)

Lhoist North America
3700 Hulen St
Fort Worth, TX 76107
(817) 732-8164

Chlorine 12.5%

Hill Bros. Chemical Co.
Corporate HQ:
1675 North Main St.
Orange, CA 92867
(800) 821-7234

Hill Bros. Chemical Co.
Corp Safety & Compliance:
7121 West Bell Rd, Suite 250
Glendale, AZ 85308
(623) 535-9955

Cobalt Sulfate

Brenntag North America
5083 Pottsville Pike
Reading, PA 19605
(610) 926-6100

Constant Chlor Plus Chlorine Briquettes

Arch Chemicals, Inc.
1200 Bluegrass Lakes Pkwy
Alpharetta, GA 30004
(678) 624-5800

Sodium Hydroxide

Brenntag North America
5083 Pottsville Pike
Reading, PA 19605
(610) 926-6100

Sulfuric Acid

ASARCO LLC
5285 E. Williams Circle, Suite 2000
Tucson, AZ 85711
(520) 798-7500

APPENDIX C

REGULATORY AND CORPORATE EXTERNAL NOTIFICATION GUIDANCE FOR RESPONSE COORDINATORS

FLORENCE COPPER

CONTINGENCY AND EMERGENCY RESPONSE PLAN

February 2022

APPENDIX C
External Notification
-Regulatory and Corporate-

Environmental Regulatory Notification Procedures

- Notification Instructions
- Release Category and Reportable Quantity – List
- Estimating Release Quantities
- Regulatory Agency and Corporate Phone Numbers
- Compilation of Data for Regulatory Reporting
- Regulatory Notification Report
- Flowchart for Regulatory Notification

Environmental Regulatory Notification Instructions

Overview

The Environmental Manager or their designee is responsible for regulatory notification of any reportable release outside of containment. The multi-step procedure below is meant to serve as a guideline in the event of an accidental release.

Procedure

1. Determination of Release Category

   Go to the Release Category and Reportable Quantities list and determine the release category. This list is specific for materials used or produced at Florence Copper and the release category is indicated for each material.

   - EHS and/or HS Substances
     - If the material is an Extremely Hazardous Substance (EHS) and/or a Hazardous Substance (HS), note the Regulatory Reportable Quantity (RQ). RQ values are based on the pure chemical in question. Since most EHS and HS materials used at our facilities are not in pure form (except for Sulfuric Acid), a calculation must be made in order to determine the amount of pure chemical released. The fifth column of the Release Category and Reportable Quantities List shows the minimum amount of material that would have to be released (in its "as stored") form in order to trigger reporting.
     - Estimate the Quantity Released. Go to "Estimating Release Quantities". Equations provided there can be used for estimating release quantities. Compare the calculated Released RQ with the Regulatory RQ from the Release Category and Reportable Quantities list. Go to step 2 (Flowchart for Regulatory Notification) to determine which agencies must be notified.
   - Non-hazardous Material
     - While non-hazardous materials do not have Regulatory Reportable Quantities, releases of these materials may still be reportable. Go to step 2 (Flowchart for Regulatory Notification) to determine whether reporting is necessary. If reporting is required, the amount released should be determined. Equations provided under "Estimating Release Quantities" may be used to prepare an estimate.
   - Petroleum Products
     - Petroleum products do not have Regulatory Reportable Quantities, however, releases of these materials in excess of 25 gallons may still be reportable depending upon the circumstances. Go to the step 2 (Flowchart for Regulatory Notification) to determine whether reporting is necessary. Determination of the quantity released may be made using the equations under "Estimating Release Quantities".

2. Flowchart for Regulatory Agency Notification

   Go to this chart. Using the release category determined in step 1, determine which regulatory agencies must be notified. It is possible that an incident may not require notification of regulatory authorities, this can be determined from the flowchart.

3. Information Requirements

   Prior to making notification, the form "Compilation of Data for Environmental Regulatory Notification" should be completed (copies of the blank form may be made as needed). The data on this form can be used to respond to questions from the regulatory person receiving the notification.

4. Agency Phone Numbers

   The phone numbers of all environmental regulatory agencies requiring notification are compiled on the "Environmental Regulatory Agency Phone Numbers" list.

5. Regulatory Notification

   When contacting the agency representative, indicate that you wish to report a release of whatever material was released. The agency person will then proceed to ask for the information required. The "Environmental Regulatory Notification Report" form must be completed separately for each agency contacted. Copies of the blank form may be made as needed.

February 2022

Release Category & Reportable Quantity

CAS No.	Material	Release Category[a]	Pure Material Regulatory RQ[b], lbs.	Notification Trigger, as stored
	Sulfuric Acid, 93-100%	EHS	1000	65 gals.
	Hydrated Lime			NA
8002-05-9	Petroleum Products			25 gals
	Sodium Hydroxide		1000	158 gals.
7681-52-9	Sodium Hypochlorite (Bleach) 12.5%		100	58 gals.
174333-80-3 64742-47-8	ACORGA M5774- Benzaldehyde 30-60% Petroleum distillates, Lt., 7-13%		10 -	10 gals 25 gals
64742-47-8	Petroleum distillates, Lt., 100%	Petroleum Products	-	25 gals
NA	Hazardous Waste	HS	Per Code	
	D001 Ignitable			
	D002 Corrosive			
	DXXX Dissolved Copper			
NA	Oil, Misc. Petrol. Prods	Petroleum Products	-	25 gals
74-98-6	Propane	Petroleum Products	-	-
NA	Used Oil	Petroleum Products	-	25 gals
68334-30-5	Diesel fuel	Petroleum Products	-	25 gals
NA	Transformer fluid, non-PCB (mineral oil)	Trans. Fluid	-	25 gals

[a] EHS = Extremely Hazardous Substance
HS = Hazardous Substance

[b] RQ = Reportable Quantity

[c] Calculate based on analysis of release sample

[d] Depends on the mixture

Estimating Release Quantities

The procedures described below are only applicable to liquid releases. Estimation of gaseous releases (e.g., propane, chlorine, etc.) should be referred to a member of the environmental staff.

1. **Calculate the area covered by the release:**

   For areas that are approximately rectangular or square, the coverage is calculated as follows:

   Area = length x width (in feet)

   Example:

   Length = 40 ft., width = 50 ft.
   Area = 40 x 50 = 2000 ft^2
   = 2000 ft^2

   For areas that are approximately circular, the coverage is calculated as follows:

$$Area = \pi\frac{d^2}{4}$$

   Where π = 3.1416
   D = diameter of the liquid pool in feet

   Example:

   Diameter = 15 ft.

$$Area = \frac{3.1416 \text{ x } 15^2}{4}$$

   = 176.7 ft^2

2. **Calculate the volume (in cubic feet) of liquid released:**

   Multiply the area covered by the depth of the liquid

   $Volume_{cubic\ feet}$ = area x depth

   Example:

   Area = 176.7 ft^2, depth = 3 inches (Note: depth in inches must be converted to depth in feet)

   $Volume_{cubic\ feet}$ = 176.7 ft^2 x 3 inches (x 1 foot/12 inches)
   = 176.7 ft^2 x 3/12 ft.
   = 44.18 ft^3

3. Calculate the volume (in gallons) of the release:

$Volume_{gallons} = Volume_{cubic\ feet} \times 7.48\ gallons/ft^3$

Example:

$Volume_{gallons} = 44.18\ ft^3 \times 7.48\ gallons/ft^3$

$= 330.5\ gallons$

4. Determine the weight (in pounds) of the liquid released as follows:

$Weight = Volume_{gallons} \times 8.33\ lbs./gallon \times specific\ gravity\ of\ the\ liquid$

Example:

Weight = 330.5 gallons x 8.33 lbs./gallon x 1.5

= 4130 lbs.

Note: typical specific gravity values for the following materials are:

Sulfuric Acid 96-98% = 1.8

Water = 1.0

An exact measurement of the specific gravity of a sample of the released material should be obtained whenever safely possible.

5. **Determine the concentration of the hazardous or extremely hazardous substance (if applicable) in the released material.**

This can be determined from process knowledge, from an SDS, or by laboratory analysis of a sample of the material.

6. Estimate the released Quantity (if applicable) to determine if regulatory reporting is required

Quantity = Weight of the released material x concentration of hazardous chemical

Example:

Weight = 4130 lbs., concn. = 50% = 0.50

Released Quantity = 4130 lbs. x 0.50

= 2065 lbs.

February 2022

Environmental Regulatory Agency Phone Numbers

Agency	Phone No.
Arizona DEQ, Emergency Response Unit	Release: 602-771-2330 or 800-234-5677; Emergency: 602-390-7894
National Response Center	800-424-8802
Pinal County Local Emergency Planning Coord	520-866-6684 888-431-1311
Arizona Department of Public Safety (Sherriff)	602-223-2000 602-223-2030
EPA Region IX	1-800-300-2193
Arizona State Non Emergency Spill Reporting	602-771-2330 (8am – 5pm) 800-234-5677 x. 1

Taseko Corporate Phone Numbers

Corporate Group	Phone No.
Richard Tremblay, Vice President, Operations	Office: 778-373-4573 Cell: 250-267-7774
Rob Rotzinger – Vice President, Capital Projects and Corporate Crisis Chair	Office: 778-373-4570 Cell: 604-506-5490
Sean Magee – Vice President, Corporate Affairs and Corporate Crisis Media Relations & Communications Coordinator	Office: 778-373-4543 Cell: 604-351-2550
Richard Weymark – Vice President, Engineering and Corporate Crisis Coordinator	Office: 778-373-4564 Cell: 250-574-4308

Environmental Response Contractor Phone Numbers

Company	Phone No.
Clean Harbors, 4004 W. Earhart Way, Chandler, AZ 85226 (Preferred Provider)	480-545-2777
Environmental Response Inc., 2202 W. Medtronic Way, Ste. 108 Mesa, AZ 85281	480-967-2802

Management Compilation of Data for Environmental Regulatory Agency Notification

Date:_____

Name of company representative contacting the regulatory agencies:_____

Phone number where this person can be reached: _____

Company Name: Florence Copper, Inc.
Mailing Address: 1575 W Hunt Hwy
City/State/Zip: Florence, AZ 85132

Facility Location:

Latitude/Longitude	Legal Description
33° 03' 00" N / 111° 25' 00" W	Township 4S, Range 9E, Sections 26, 27, 28, 33, 34, and 35, NE¼, NE¼, SE ¼ of the Gila and Salt River Base Line and Meridian

Date of release: _____ Time release was discovered: _____

Name of person discovering the release: _____

Material released: _____ CAS No. (if applicable): _____

Regulatory Reportable Quantity (RQ): _____

Preliminary estimate of amount discharged (Released RQ):
_____

Is the discharged material an Extremely Hazardous Substance (EPRCA Sect. 302)? _____

If yes:

- Identify known acute or chronic health risks (refer to SDS): _____
- What pertinent medical advice was issued: _____

If the discharged material is a hazardous waste, indicate its waste code: _____

Medium the material was released to: (air, water, land): _____

Waterway affected, if any: _____

Was the discharge controlled by a permanent secondary containment structure (diked area)? _____

Estimate of amount reaching water (if applicable): _____

Cause of release: _____

_____

_____

Action take to contain, control, and cleanup the discharge: _____

_____

February 2022

Compilation of Data for Environmental Regulatory Agency Notification
(complete separately for each agency)

Date of Notification: _____

Time of Notification: _____

Agency Contacted: _____

Name of Person Contacted: _____

Information Reported:

_____
_____
_____
_____
_____
_____
_____
_____

Instructions Received:

_____
_____
_____
_____
_____
_____
_____
_____

Comments Received:

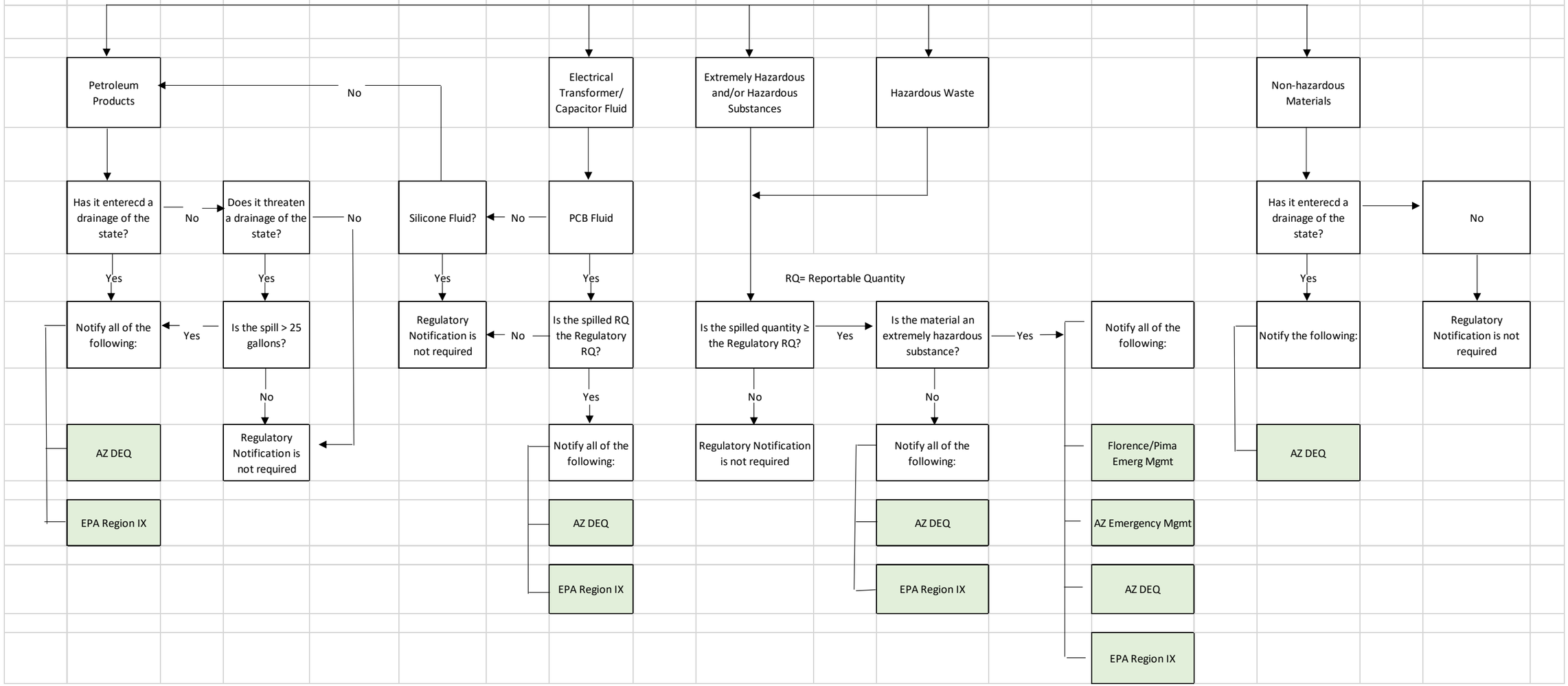
_____
_____
_____
_____
_____
_____
_____
_____

Printed Name: _____

Signature: _____

Florence Copper, Inc. Contingency and Emergency Response Plan

Spill or Release of:



Flow Chart

APPENDIX D

PLAN REVISIONS

APPENDIX D PLAN REVISIONS

Revision No.	Date	Section	Page(s)	Description
1	1/30/19	All	All	Formatted document with new font
0	2/26/19	Appendix D	All	Created Appendix D to track doc. changes
2	2/27/19	Appendix B	All	Updated with selective supplier information Updated headers and footers
3	6/15/2020	Appendix C	All	Updated pagination
3	7/15/2020	Plan Document	-	Added signature line
			i-ii	Updated index with changes below
			ii	Added Table of Figures
			iii	Removed team names – Left titles
			iv	Added Emergency Response Contacts page
			v	Added Florence Hospital listing
			vii	Added map to Florence Hospital
			1-12	Revised header
		Appendix D	1	Updated Plan Revision Tracking
3a	08/25/2020	Appendix C	10	Updated reporting flow chart
4	03/16/2021	All	All	Updated due to issuance of APP No. 101704
5	02/25/2022	All	All	Updated corporate and safety coordinator info